COMPASS BLUEPRINT
new directions for growth

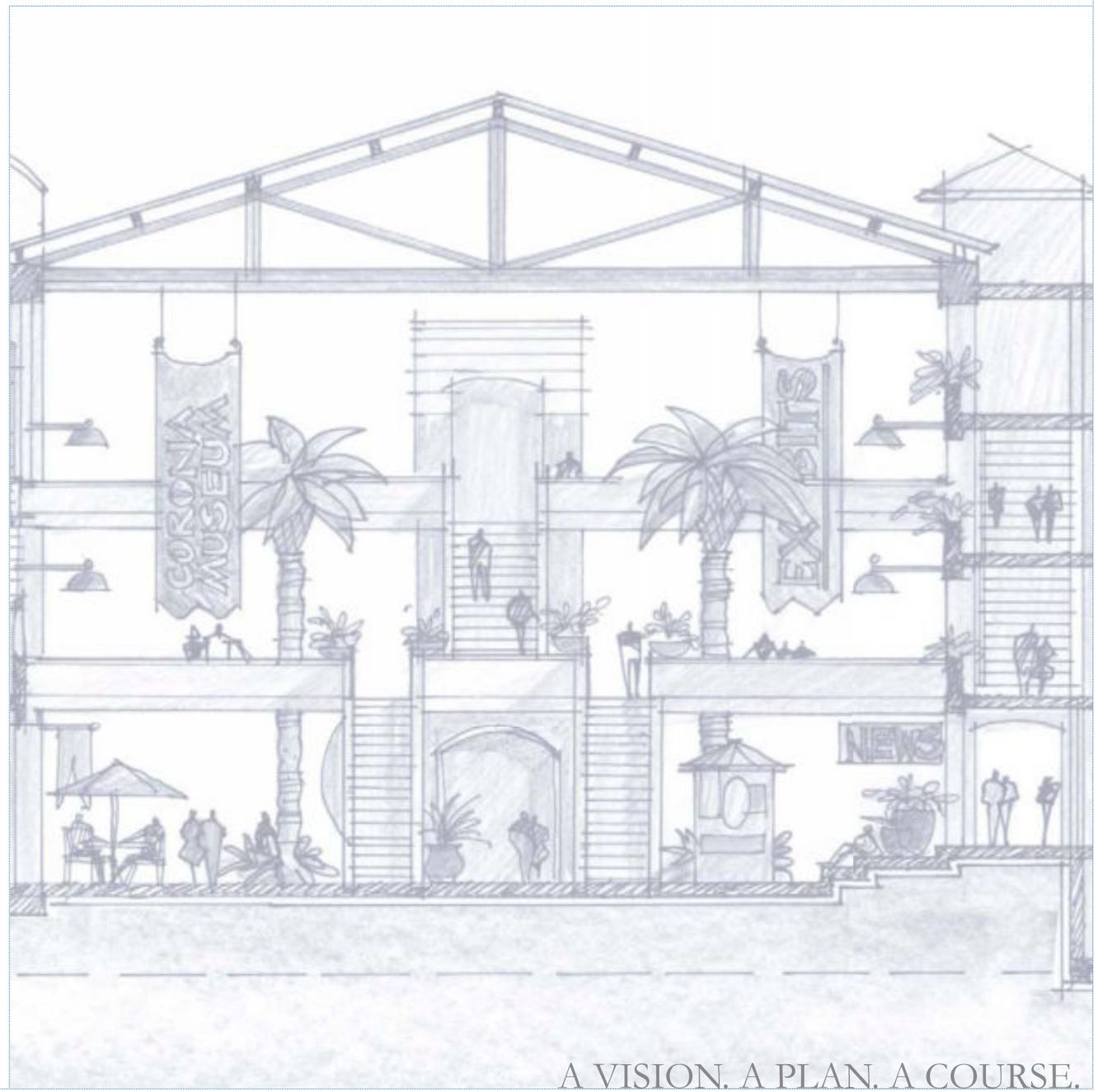
SOUTHERN CALIFORNIA ASSOCIATION of GOVERNMENTS

WRCOG

RCTC

FROM TRANSIT STATION TO TRANSIT VILLAGE

A Recommendations Report for the North Main Corona Station



A VISION. A PLAN. A COURSE.

Contents

Existing train depot

Existing Park & Ride station

Acknowledgements

This project was a collaborative effort involving the participation of regional, subregional, and local agencies. Primary funding was provided by Caltrans through a Community-Based Transportation Planning Grant, and by SCAG through Compass Demonstration Project Funds. The Western Riverside Council of Governments (WRCOG) took the lead in establishing an Advisory Committee to guide the station area planning efforts for six jurisdictions in Western Riverside County. The WRCOG TOD Advisory Committee includes members from:

- Southern California Association of Governments (SCAG)
- Caltrans District 8
- Riverside County Transportation Commission
- Riverside Transit Agency
- Riverside County
- Center for Sustainable Suburban Development at UCR
- Endangered Habitat League
- Cities of Riverside, Corona, Perris, Hemet, Moreno Valley, and Temecula

Prepared by:

THE PLANNING CENTER

Introduction

Southern California offers an abundance of recreational, entertainment, and economic opportunities set in a gorgeous living environment that continues to attract new residents and new jobs. The growth in Western Riverside County alone is expected to double in both population and employment over the next 30 years. In response, policymakers and developers are taking a new interest in transit-oriented development as a way to accommodate the increased growth, address congestion issues, and promote enhanced commuter transit options.

Compass Blueprint Strategy

In 2001, the Southern California Association of Governments (SCAG) started a regional visioning process that culminated in a strategy for regional growth that would accommodate the coming growth while providing for livability, mobility, prosperity, and sustainability. This strategy, called "Compass Blueprint" promotes a stronger link between regionwide transportation and land use planning and encourages creative, forward-thinking and sustainable development solutions that fit local needs and support shared regional values. The strategy is broadly based on the following four key principles, which can be referred to as the "Compass Principles."

Principle 1: Improve Mobility

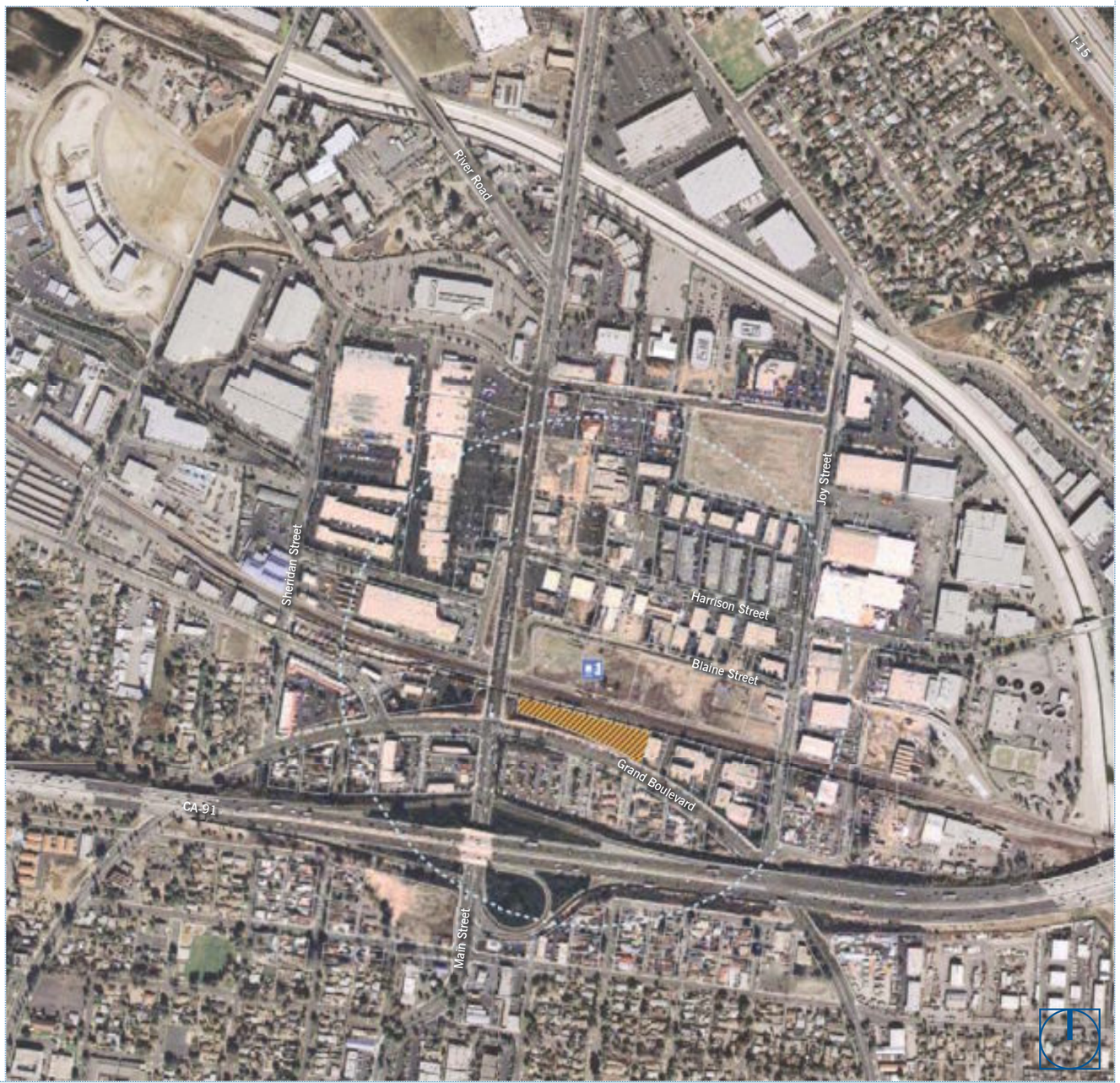
Principle 2: Foster Livability in All Communities

Principle 3: Enable Prosperity for All People

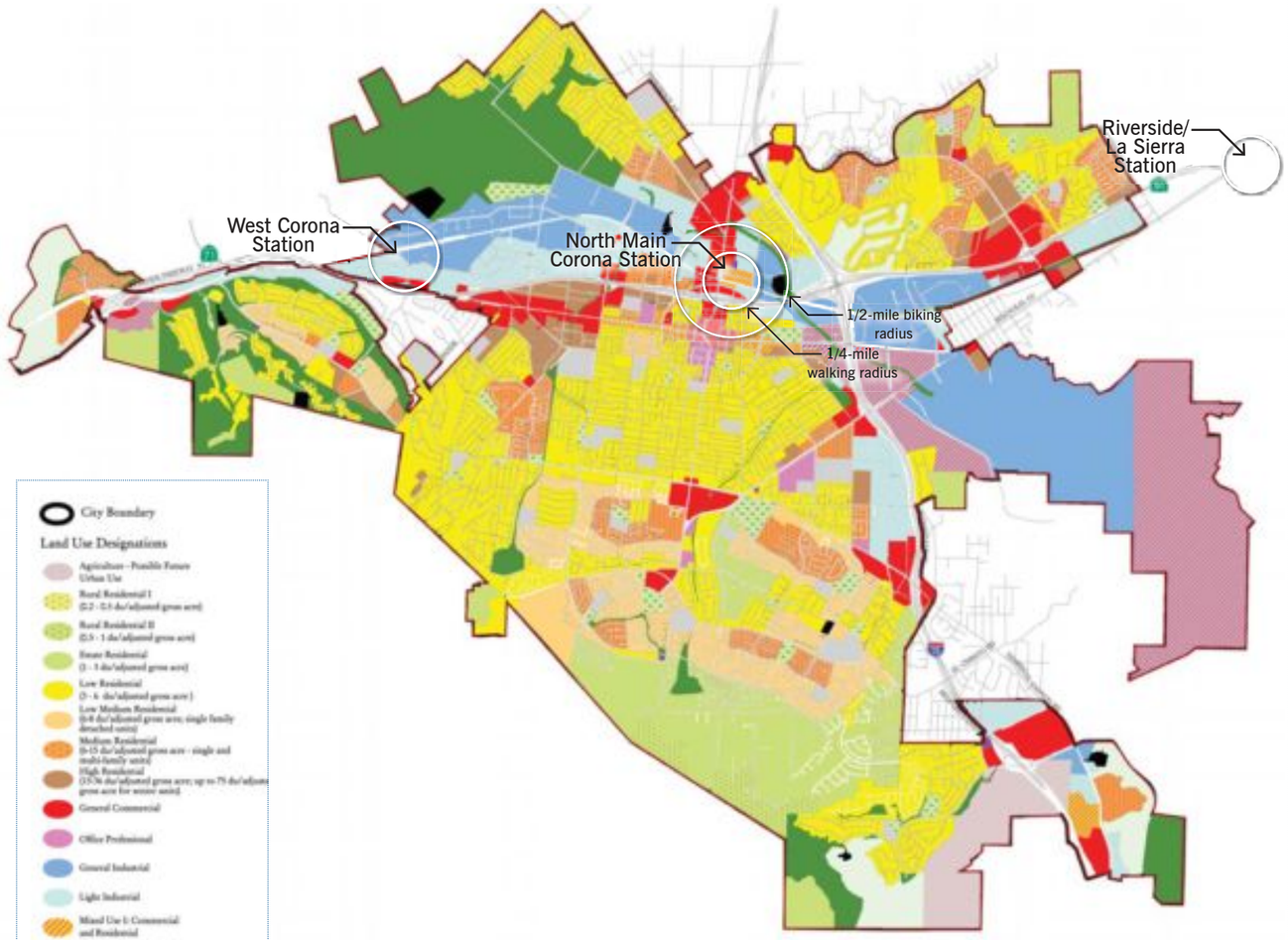
Principle 4: Promote Sustainability for Future Generations

Compass Blueprint is now in the implementation phase and SCAG is partnering with cities and counties in southern California to realize this growth vision on-the-ground. A series of Compass Blueprint Demonstration Projects were conducted that exemplify the goals shared by the Compass Blueprint and unique visions of local communities. Led by the Western Riverside Council of Governments (WRCOG), the North Main Corona Station was selected to be one of these demonstration projects.

Aerial Map



Corona General Plan Land Use Map



Demonstration Project Summary

The North Main Corona Station Demonstration Project was conducted to understand the development potential of the project site, which can depend upon many variables, including socioeconomic trends, surrounding development patterns, and the type of development envisioned for the station area. This demonstration project is a first step in evaluating these conditions and making a series of recommendations for next steps.

The North Main Corona Station is located near Main Street, north of CA-91, in the City of Corona. It is just over a half-mile north of Corona's Downtown District, in the southeast portion of the North Corona Specific Plan area and the General Plan's North Main Street Opportunity District. In 2000, the City adopted the North Corona Specific Plan in hopes of turning the area into a vibrant entertainment and retail district. Over time, however, the area has evolved with a mix of secondary/off-price discount retail uses, auto-oriented large and small retail uses, and fast food, with many underutilized parcels. To revitalize the area, the City recently revised its General Plan (2004) for the area immediately surrounding the Metrolink station. The City now envisions the station area as offering an expanded commercial, residential, and other compatible uses with a transit-oriented focus. This represents a first step in Corona's transition from a stand-alone transit station with parking to a Transit Village with a mixed-use environment, expanded transit services, and a pedestrian urban design focus.

To assist the City in further developing a vision for the station area that considers all the elements of a vibrant Transit Village, this demonstration project:

- Conducted land use opportunities and constraints analysis from a transit-oriented perspective;
- Conducted circulation analysis that focuses on circulation issues associated with future transit ridership projects and intensification of land uses;
- Created contextual urban design strategies to intensify land uses;
- Created circulation concepts that incorporate pedestrians and propose multiple access routes within the half-mile area of influence;
- Coordinated evaluation of joint development associated with the proposed RCTC parking structure (ongoing);
- Proposed a design vision that illustrates the unique opportunities of TOD development;
- Proposed extensive bus transit recommendations that better integrate commuter rail service with local and regional bus service; and
- Included overall transit village development recommendations to provide guidance through the next planning phases.

This recommendations report presents the results of these actions and provides a vision plan for the North Main Corona Station area. The report is intended as a beginning guide the transition the project site from a transit station to vibrant Transit Village. It provides urban design guidance and policy recommendations to amend the North Main Street Specific Plan and address transit agency plans for parking and bus service.

Public/Private Partnerships

Public agencies can provide the infrastructure and capital improvements for each Transit Village, but private enterprise will provide much of the necessary investment to maximize the opportunities for orderly phasing of development by encouraging joint development, shared parking, land banking, as well as other new land use and transportation programs.

In the City of Corona, the currently planned parking lot is a prime candidate for a unique joint-use development of mixed uses and parking.

Transit Perspective

The Riverside County Transportation Commission (RCTC) is one of five transportation commissions in Southern California that comprises the Southern California Regional Rail Authority—more commonly known as Metrolink. RCTC owns five Metrolink stations in the County. The City of Corona includes two Metrolink stations: the North Main Station, located near the City's downtown district at North Main Street and CA-91; and the West Corona Station, located on Auto Center drive near CA-91, in the western portion of the City. The North Main Station is the 2nd busiest station in the County, with 756 average daily boarding, compared to 319 for West Corona Station.

The North Main Station currently serves primarily as an origin for riders heading to Riverside, Los Angeles, and Orange counties. According to a study conducted in March 2006 by Southern California Regional Rail Authority, the top five work-related destinations, by percentage of ridership, projected for 2010 are:

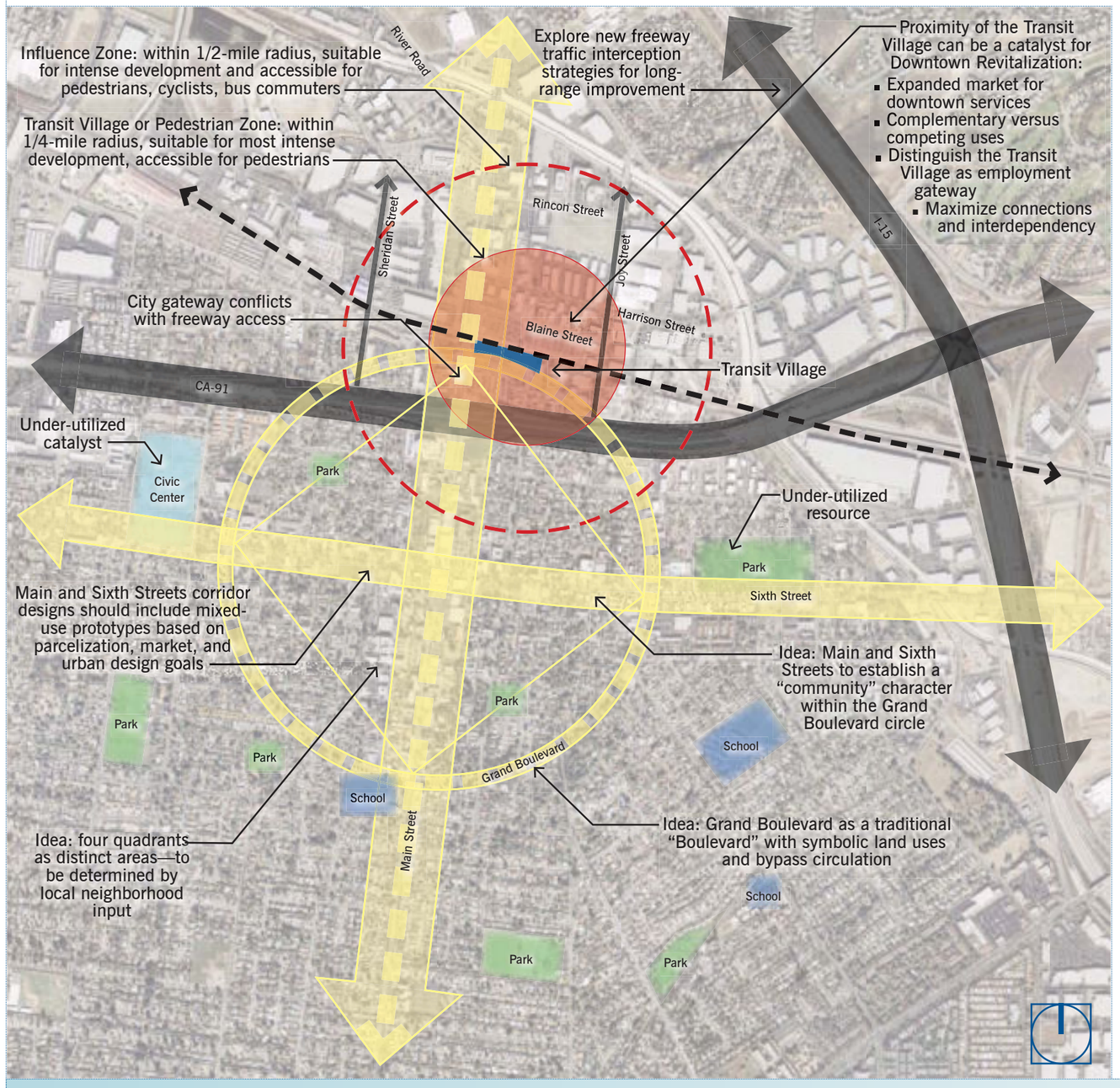
- Oceanside 16%
- Laguna Niguel/Mission Viejo 15%
- LA Union Station 15%
- Irvine 13%
- Santa Ana 7%

Future plans for the North Main Station include an expansion of the 536-space Park & Ride facility, which operates at 95 percent capacity. Also, the Riverside Transportation Authority is planning to construct a new bus terminal across from the station.

Metrolink train

Metrolink Stations

Site Context



Site Context

Influence Zones

Transit Village planning should consider a wider area of the influence zones. Each Transit Village needs to be planned as part of a larger district and corridor design vision plan. The corridor design vision considers potential impact on development within transportation corridors, such as shuttle and local bus routes. Due to this broader corridor design vision, the impact and influence zones for Transit Villages are larger than the traditional quarter- and half-mile radii. The shuttle and local bus routes expand the influence zone within a reasonable commuter time frame. The result: higher intensity development along corridors that attract transit users.

Contextual Design Strategies for Corona

The potential for new, more intense land use opportunities will result in economic benefits for adjacent parcels. While this development will create new traffic impacts, it will also create the potential for exciting mixed-use villages and districts. In Corona, a focused effort to create a Transit Village can have a major impact on the success of a downtown revitalization plan. Its success will be a product of how well the future Transit Village is integrated with the Revitalization Plan.

The following ideas present opportunities to capitalize on the unique heritage of the downtown area between Main Street, Sixth Street, and Grand Boulevard.

- Intensify housing and mixed-use along these corridors;
- A downtown with a mix of housing densities, historical districts, and parks;
- Preserve and enhance Corona's tradition as a "small town"; and
- Maximize connections and interdependency between the downtown and the Transit Village.

Higher intensity office uses

Mixed use adjacent to an urban park

Land Use Analysis

Opportunities & Constraints

- Planned bus station with parking located at Main Street and Grand Boulevard presents the opportunity to influence ingress/egress, and the need for a future expansion area.
- Commercial and light industrial buildings surround to the north, east, and west, with several small eating establishments throughout; single family development exists to the south.
- Transit station is two blocks from CA-91, with existing surface parking at the Metrolink station. Parking structure to accommodate approximately 4,000 cars is being planned, presenting an opportunity to evaluate the economic value of a joint-use development on the parking side.
- Air quality, noise, and vibration impacts on residential surrounding the tracks should be evaluated on a case-by-case basis.
- Grade changes in the area are a constraint for both pedestrian and vehicular circulation around the transit station.

Grade change east along Grand Boulevard

Mixed-Use or Multiuse Development

The more transit stations are able to provide a balance of origins (housing) and destinations (employment and community uses), the more effective they can be at attracting ridership to the system and the more they act as a catalyst for an exciting and balanced community.

Even though Corona's proposed Transit Village is currently located in an employment area, there is potential and interest for mixed-use development, higher density residential, as well as high-rise office and hotel uses.

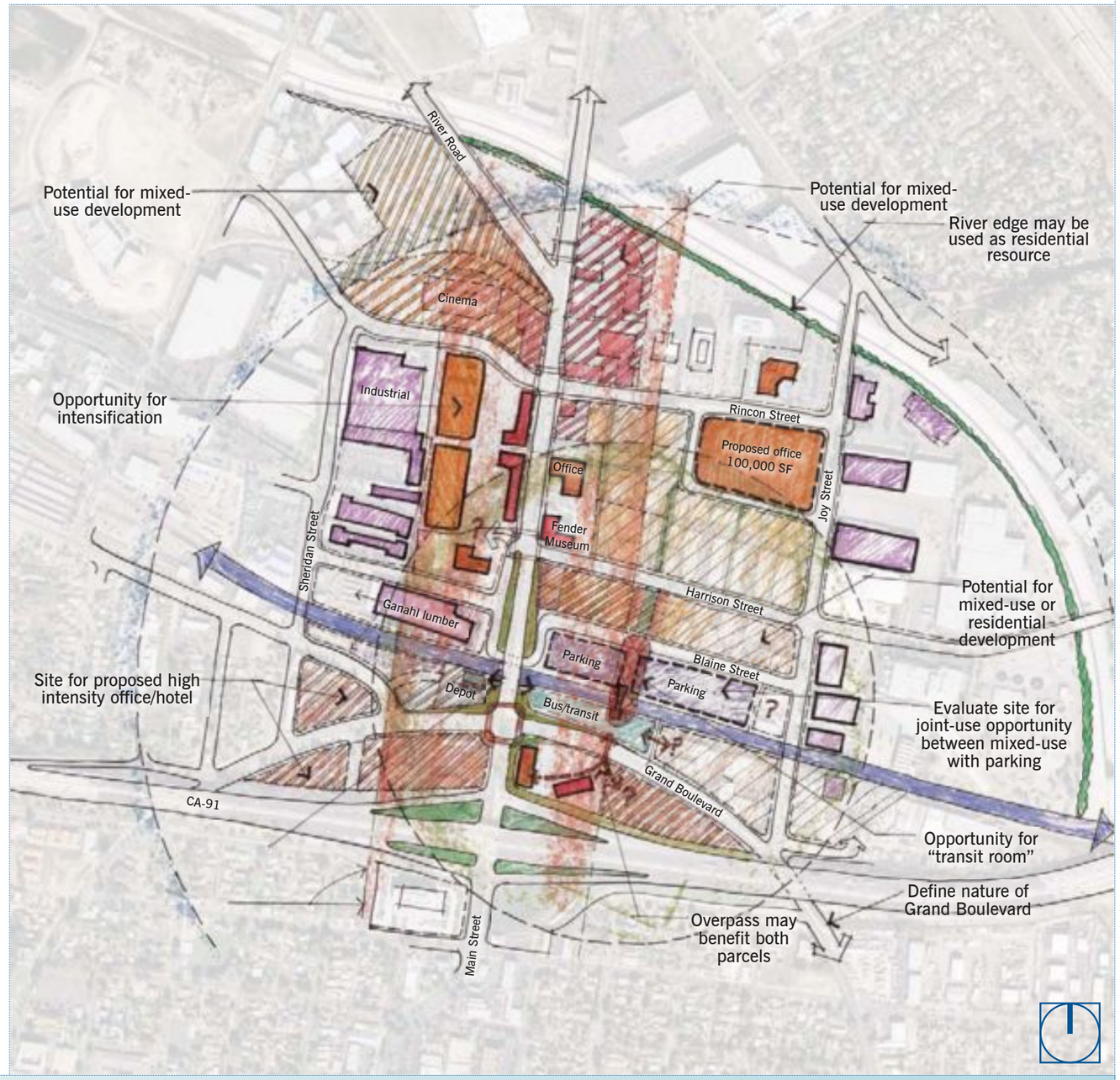
Bus Transit Corridors

Buses can expand ridership potential beyond the quarter- to half-mile radii normally associated with successful Transit Village planning. The bus corridors can also be prime locations for higher density housing and other mixed-use corridor developments.

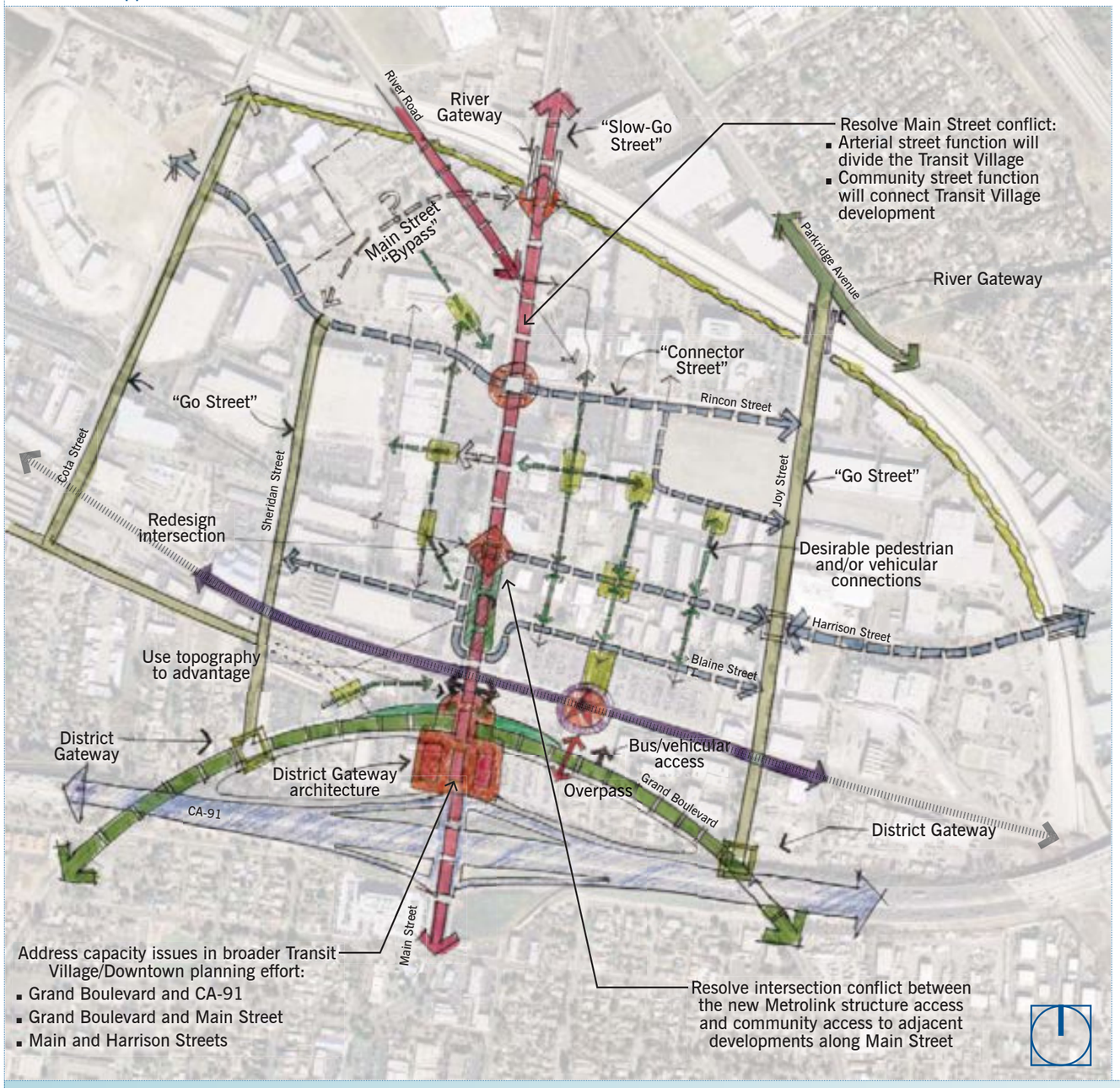
The ability of buses to easily access the transit station is critical to successful ridership levels on both systems. While the combination of a bus transit hub, transfer point, and rail platform is ideal, normal bus stops within walking distance of the transit stop will be useful, particularly where travel times along bus routes are critical.

In Corona, proposed bus routes along Main, Sixth, and Grand in the downtown area have potential for attracting new, higher density development on underutilized commercial strips. See *Bus Transit Recommendations* for the delineation of proposed bus routes.

Land Use Opportunities & Constraints



Circulation Opportunities & Constraints



Circulation Analysis

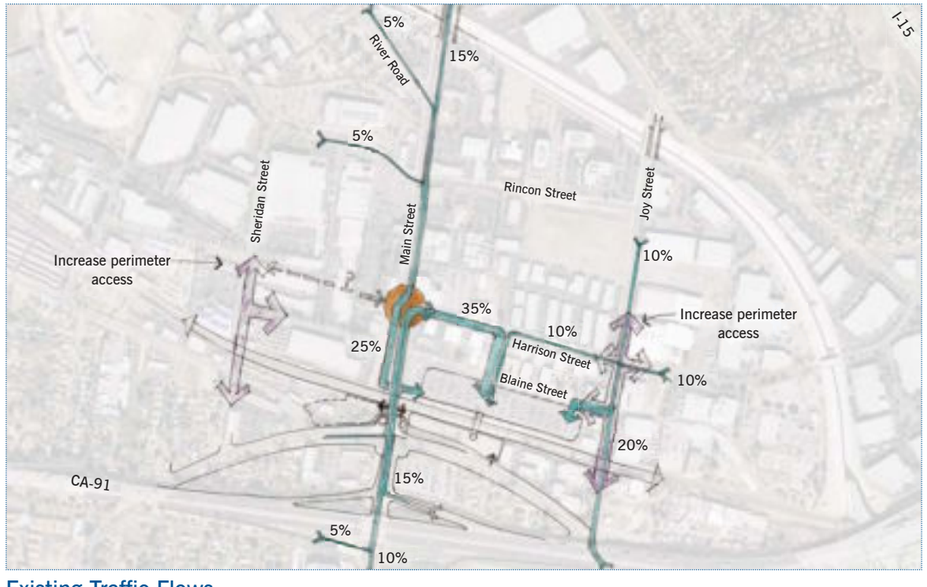
Opportunities & Constraints

- Currently, the majority of peak hour traffic that accesses the Metrolink Station comes from Main Street to the west.
- Existing traffic flows reveal potential intersection overloads at Main and Harrison Streets, Main Street and Grand Boulevard, and Grand Boulevard and CA-91.
- Topography at Grand Boulevard and Main Street creates an opportunity for grade-separated connections.
- Parallel streets to Main Street provide opportunities for alternative "bypass" routes, linked by perpendicular streets serving as connector streets.

Context-Sensitive Street Design Principles

A correlation of land uses and transportation needs can resolve potential conflicts with buses and cars in the early stages of Transit Village planning. Context-sensitive design (CSD) can provide solutions for potential conflicts between pedestrians, buses, and automobiles. CSD incorporates a traffic analysis for future land uses, a revised circulation pattern, and the development of a new hierarchy of streets, including one-way streets.

The section of Main Street from River Road to the intersection with Harrison is a prime candidate for a specially designed street that will give priority to pedestrians and buses: a "Slow-Go Street." The thru traffic that might normally be on that area of Main Street could be redirected to Joy and Sheridan Streets, designated as "Go Streets."



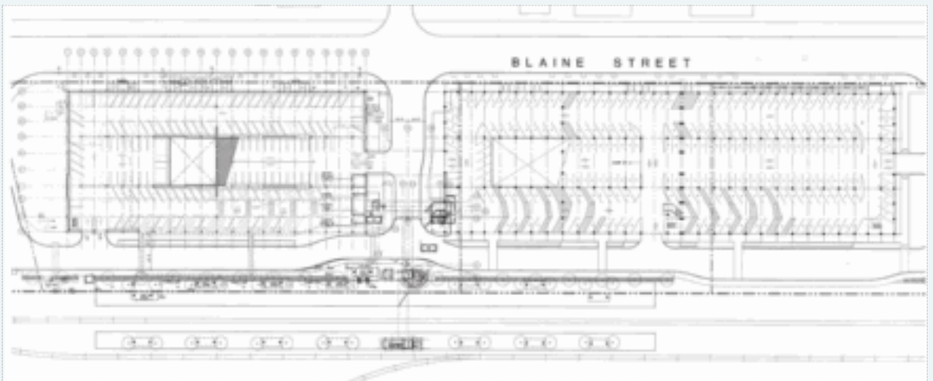
Existing Traffic Flows

RCTC Joint Development Analysis

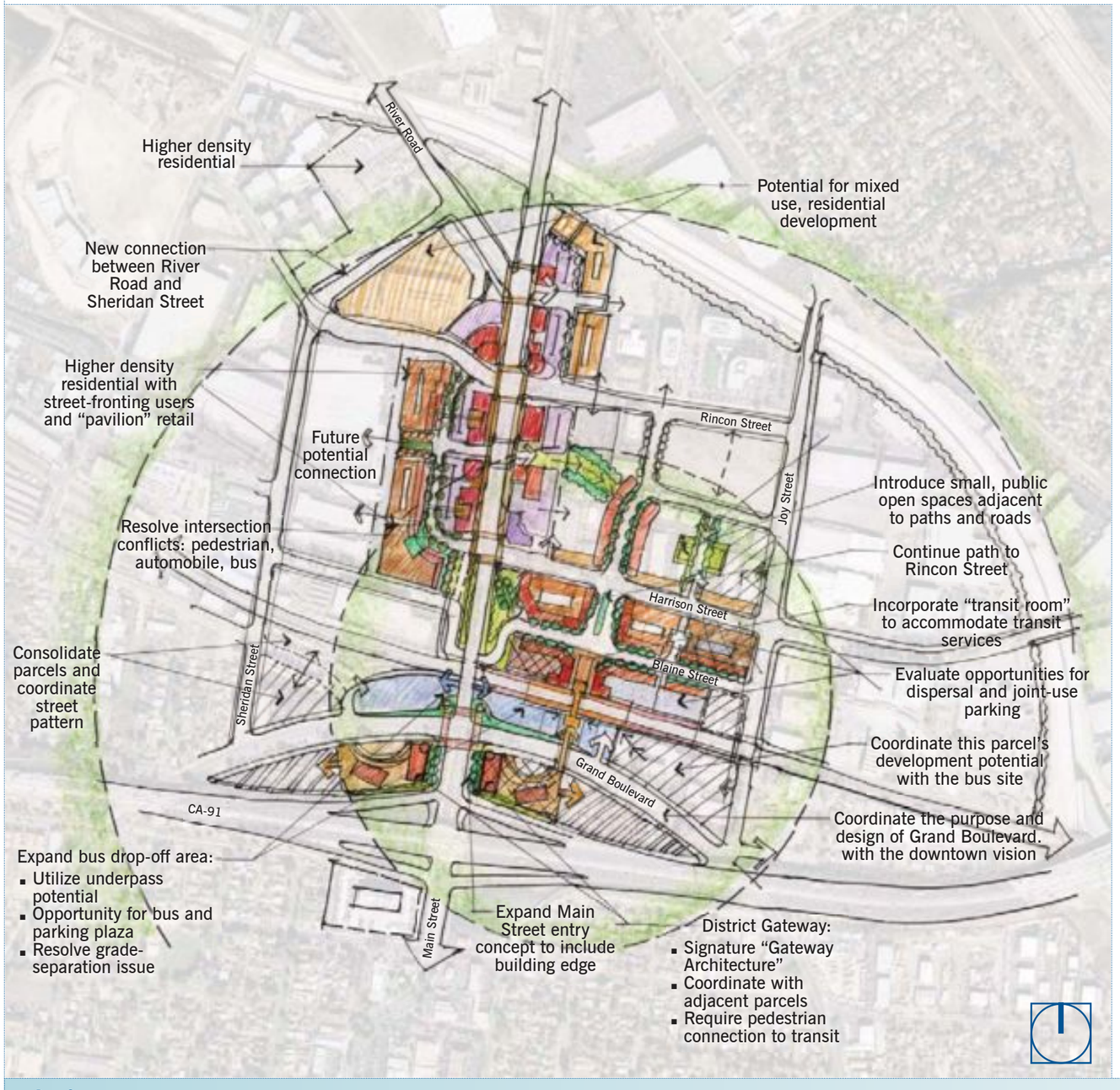
Separate analysis being undertaken by RCTC.
To be inserted when complete.

Graphic Title

Metrolink Parking
Structure Plan



Land Use Concept



The Big Ideas

Land Use

The addition of the Metrolink station presents opportunities for high intensity and mixed-use development in the surrounding influence areas, creating a Transit Village. The following points summarize land use recommendations for the Corona Transit Village.

- Coordinated street pattern:
  - Expand the Main Street entry concept to include the building edge;
  - Coordinate the purpose and design of Grand Boulevard with the downtown vision; and
  - Resolve intersection conflicts between pedestrian/bus/automobile.
- Consolidate parcels to promote a multiuse/ mixed-use village:
  - Concentrate higher density residential uses around the bus corridor along Main Street to augment the demand for bus service;
  - At a minimum, structures should include ground floor retail or office uses;
  - Introduce small public open spaces adjacent to paths and roads; and
  - Expand the bus drop-off area to incorporate a bus and parking plaza with the consolidation of parcels on the west side of Main Street.
- Transit Room:
  - Incorporate a transit room to accommodate transit services adjacent to the platform. See *Design Vision*.
- Joint-use parking:
  - Evaluate opportunities for joint-use parking and the dispersal of parking sites. The current plans for a large, single-use garage directly adjacent to the Transit Station would be better phased into a series of smaller, interconnected parking areas on parcels that could also accommodate joint-use development;
  - Explore multiple smaller sites for commuter parking rather than a single garage; and
  - Actively pursue with RCTC the joint development of RCTC parking sites with residential, commercial, or office uses.

High density residential

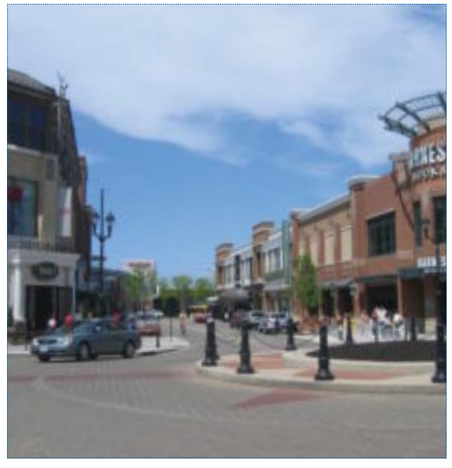
Live/work with office uses on the first floor

Circulation

The intensification of development around the Metrolink station will have new traffic implications, which requires a comprehensive evaluation of all types of circulation needs. The combination of the Caltrans Park & Ride, Metrolink station, bus routes and transfer points, in addition to the new development, have generated the following circulation recommendations.

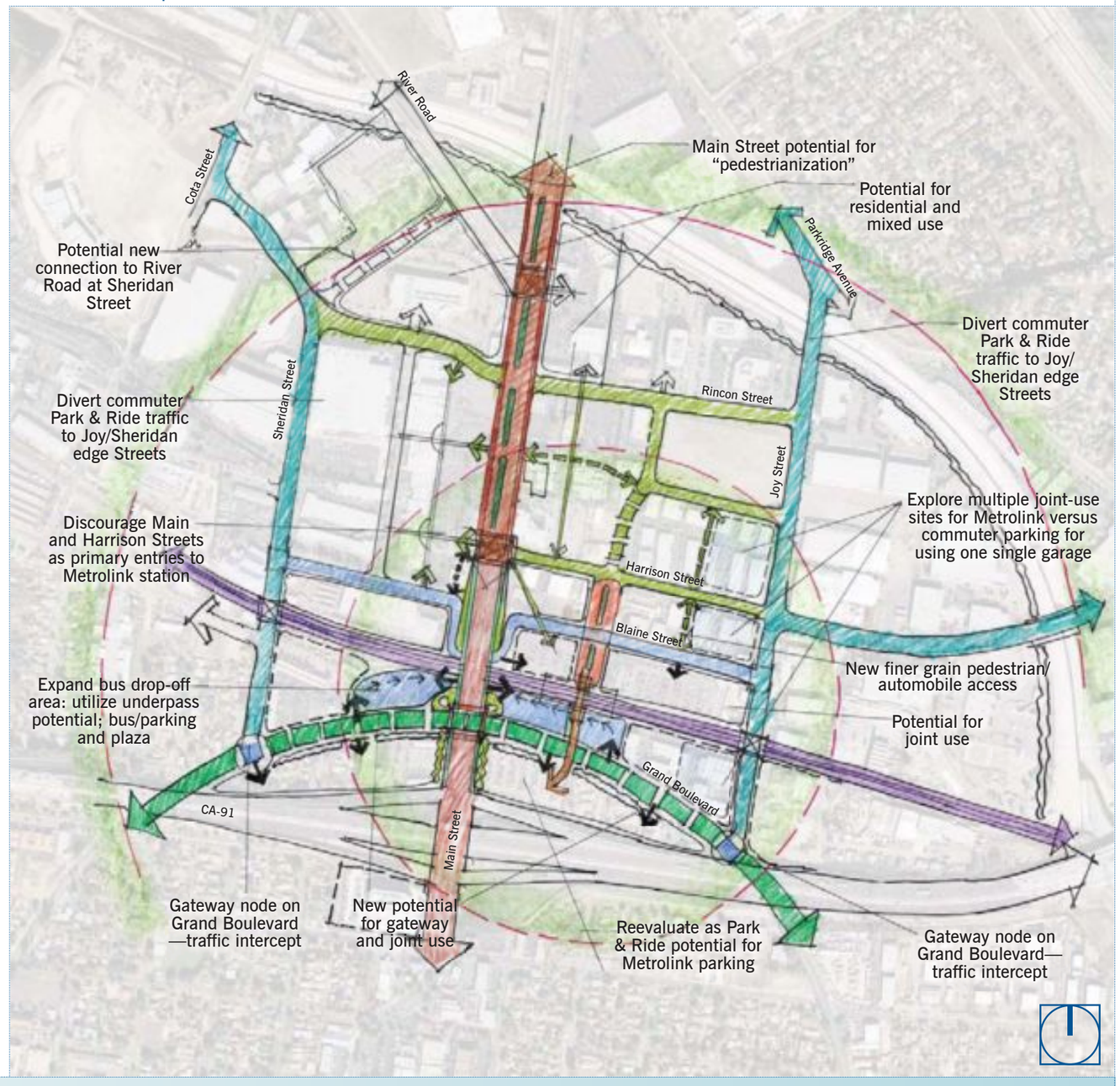
- Commuter traffic patterns:
  - Separate commuter traffic from community traffic with Main Street bypass routes along parallel streets such as Joy and Sheridan Streets;
  - Divert commuter Park & Ride traffic to Joy and Sheridan Streets to access the transit parking area from the east and west directions; and
  - Explore the potential for a new connection to River Road at Sheridan Street.
- Access points:
  - Increase perimeter access to reduce peak hour volumes associated with the Metrolink and future bus station; and
  - Discourage Main and Harrison Streets as primary access points to the Metrolink station and bus transfer area.
- Street functions:
  - Establish Main Street as a primary community route. This Slow-Go Street and bus corridor will have more of a pedestrian-oriented look and feel through the design of new development; and
  - Add a more comprehensive pedestrian and vehicular circulation system as new development is proposed.
- Caltrans Park & Ride site:
  - Consider a new location—site may be better used for Metrolink parking.
- Gateway opportunities:
  - Identify gateways to the Transit Village as District Gateway and River Gateway with monumentation and signature architecture.

Parking structure with retail on the first floor

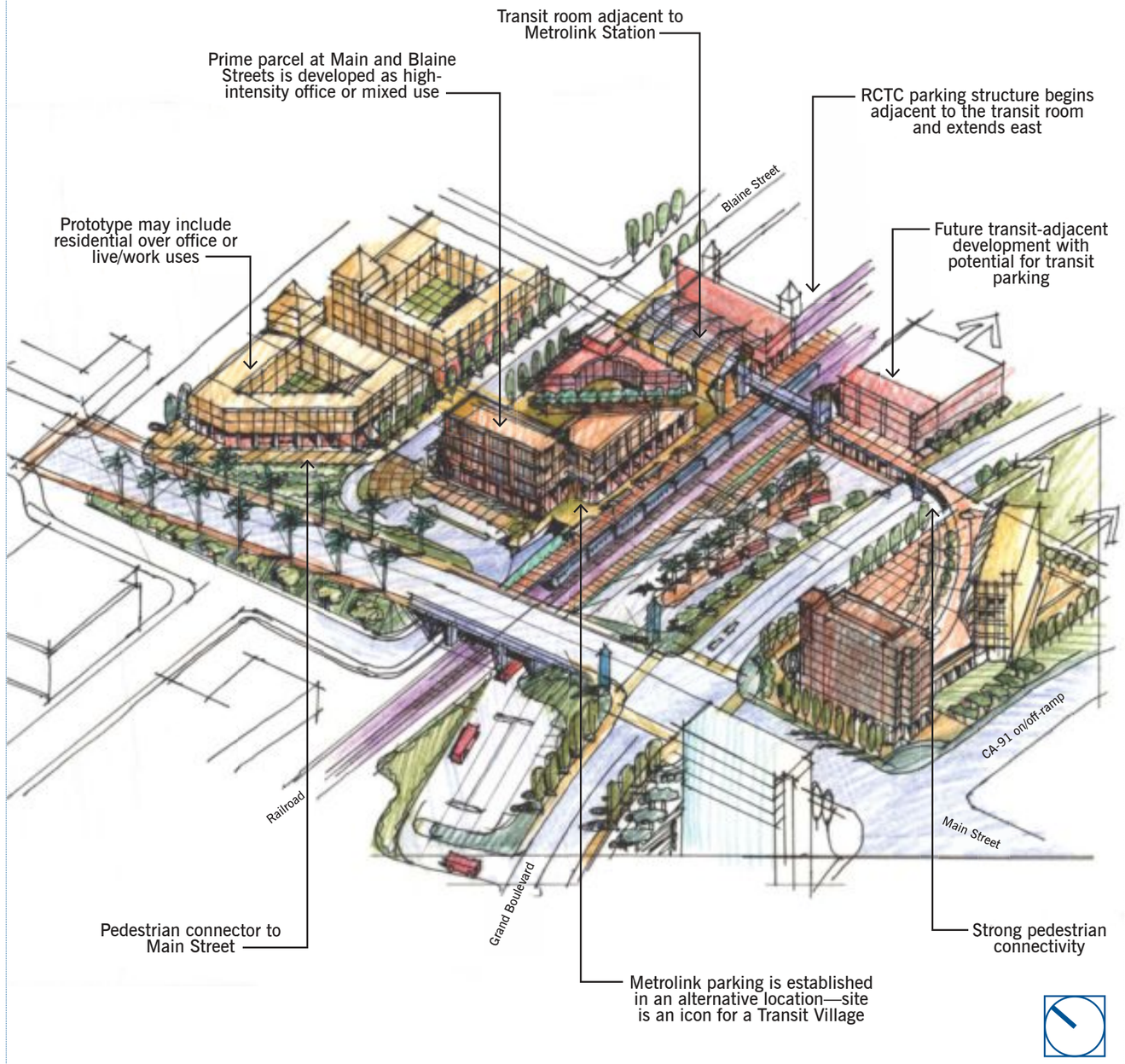


Slow-Go Street

Circulation Concept



High-Intensity Vision of Transit Core



Design Vision

Innovative Building Types

Unique opportunities exist in the Transit Village development area for new multifunctional building configurations. These building configurations may include the following characteristics:

- The first floor of the buildings should be designed to accommodate the full range of multifunctional spaces, including: retail, office, community, and residential uses;
- Flexible "loft spaces" above the retail on second and third floors can accommodate both residential and office uses; and
- Parking structures should be multifunctional to allow for joint-use parking and podium uses, as well as street-facing facades composed of a mix of uses.

The currently planned Metrolink structures present an opportunity for this type of building configuration. The parking can act as a buffer from train noise for street facing uses along Blaine Street.

Public Design Framework

While most of the development around the Transit Village area will be market driven, the framework for that growth can and should be controlled and supported by the design of the public realm. A design framework of open space, streets, and pedestrian paths will allow for phased growth and ordered development.

In Corona, this framework can employ the existing topography to an advantage for grade separated connections between buses and pedestrians.

Interception Strategy Proposed for Park & Ride

Transit Room

Transit will usually not support general retail by itself. However, it can and should support transit retail, which includes uses such as: coffee houses, bakeries, newsstands, dry cleaning, and wi-fi locations. These public transit areas are also good locations for community services such as day cares, community college and technical schools, health clubs, and possibly satellite police stations.

Wherever pedestrian transit circulation concentrates is an ideal location for a special room for waiting, and for transit-related convenience retail uses. Ideally, this would be an indoor/outdoor room or plaza, directly adjacent to the platforms, organized around a weather-protected public space. It would be a part of the larger framework of plazas, parks, and pedestrian activities that serve the entire Transit Village. If properly integrated with adjacent office and residential uses, it could also be integrated with the more conventional retail and services that normally serve those uses.

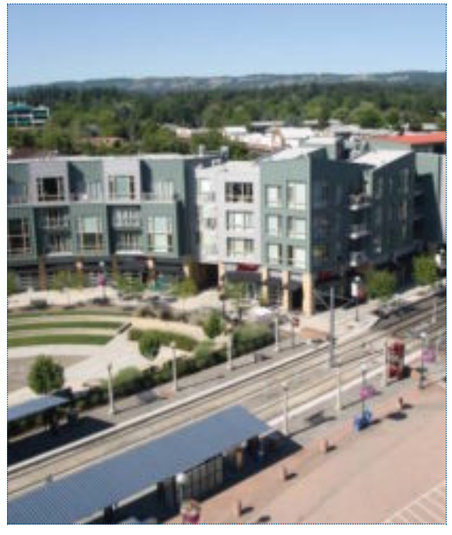
This transit room would contain ramps, escalators, stairs, and elevators that are organized to provide easy integration between the two sides of the transit stop: long-term parking structures and bus transit locations. The transit room would be well lit, secure, and open 24 hours.

Parking

A critical part of the success of a Transit Village is the integration of parking. Single-use parking in one location is difficult to finance, inflexible, and will discourage pedestrian activities.

Multiple, strategically located parking lots and structures that are balanced with street networks are the preferred alternatives. A master parking plan and parking districts will assure the maximum potential for efficiencies in joint-use parking, and minimize conflicts between buses and pedestrians. These parking locations must be part of the overall system, including on-street parking, to minimize conflicts.

However, parking structures may also serve as noise buffers for other land uses, particularly residential.



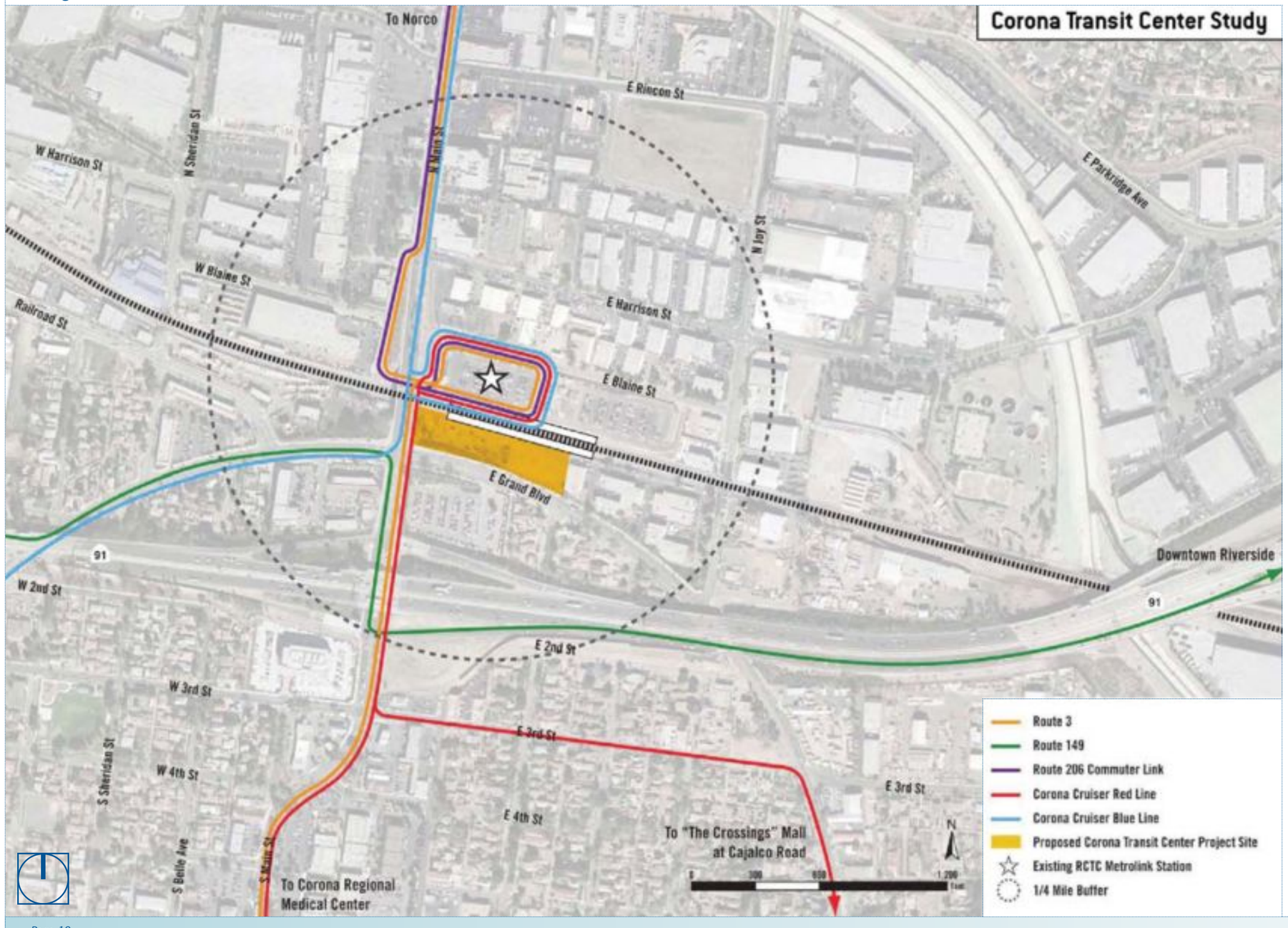
Transit Room

Transit Room Sections

Section of Transit Room looking south toward Metrolink Station

Section of Blaine Street looking west

Existing Bus Routes



Public Bus Transit

Public transit's purpose is to move people from point A to point B. With the public bus and Metrolink systems working together, people have the ability to move more efficiently and effectively. RTA is currently planning a bus transfer center adjacent to the Metrolink station. Together, the systems provide better transportation alternatives.

In particular, the benefits of locating bus transfer centers with the Metrolink station include:

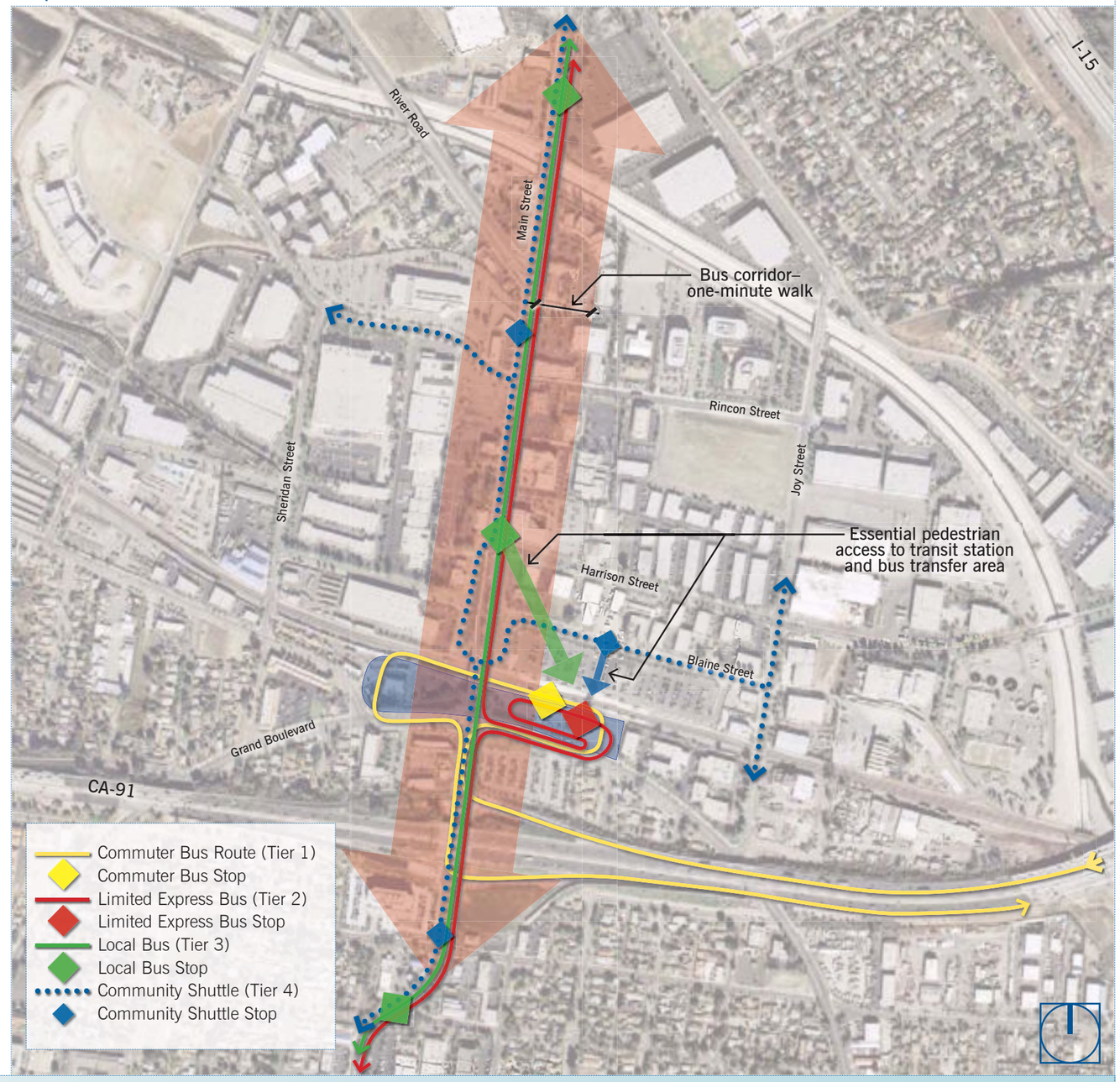
- Additional passengers for Metrolink. Locations beyond the half-mile Transit Village influence area may be served by bus schedules in sync with train schedules;
- The combination of bus and Metrolink transfers in one location provides a concentration of people and activities within the Transit Village;
- Well-designed transit centers with easy access to nearby jobs, housing, and services create a destination for commuters and local bus passengers; and
- The ability to transfer from one bus to another or from one transportation mode to another increases travel options and makes public transit more viable as the mode of choice.

Bus Transit Recommendations

Four bus service tiers are recommended for the City of Corona: the commuter bus, limited express bus, local bus, and community shuttle. The recommended routes, stops, and transfer locations are detailed in the exhibit, *Proposed Bus Routes*.

- Commuter bus:
  - Operates along I-15 corridor to areas south of Corona;
  - Provides Metrolink feeder service from unincorporated residential concentrations and Park & Ride lots along I-15 as far south as Lake Elsinore. Could include Lake Elsinore, Murrieta and Temecula prior to the opening of the Perris Metrolink station;
  - Peak only: three to four trips each morning and evening spread over two-hour peaks. Additional trips could be added if demand warrants;
  - Access to/from Metrolink transit center via I-15 and CA-91, or I-15/ Magnolia/ Rimpau/Sixth/Grand;
  - Direct-access transit ramps at I-15 and Sixth would improve running times and avoid I-15/CA-91 interchange congestion;
  - Buses could access Metrolink at proposed RTA transit center or from the north side as is the current practice. If a north side access is desired, the at-grade rail crossing on Joy Street must be avoided; and
  - Over-the-road highway coaches could be used to improve passenger comfort, or standard 40-foot transit coaches could be used to facilitate more effective RTA fleet cycling and interlining. Ride comfort on standard coaches could be enhanced by higher backs on passenger seats.
- Limited express bus:
  - Limited stop express provides service along high density corridors within Corona and possibly El Cerrito;
  - Possible corridors could include Main, Ontario, Foothill Parkway (?), Sixth, and River Road (assuming high density corridor development);
  - Service could start as a local in outer residential neighborhoods and operate as limited stop express along corridors;
  - Bus stops should be spaced at half-mile intervals with two routes operating along each corridor, serving alternating bus stops. Each route would serve bus stops spaced one mile apart, facilitating reduced running times while providing express coverage to all bus stops;
  - Bus stops should be strategically located to minimize walking distances from high-density residential developments;
  - Peak-hour-only service operating on 15-minute headways;
  - All buses access RTA transit center off Grand Boulevard; and
  - Standard 40-foot transit coaches or higher capacity articulated buses (60+ feet) if demand warrants.
- Local bus:
  - Provides a local service to all corridor bus stops in both peak and off-peak. Could be integrated with existing Corona Cruiser and RTA intercity coverage routes;
  - Operate 30-minute headways in both peak and off-peak within Corona build-up area (assumes sufficient high density development). If off-peak demand is insufficient, frequency may be reduced to 60-minute headways. Schedules could be offset with Corona Cruiser schedules to provide 30-minute headways where services overlap;
  - May eliminate need for Corona Cruiser routes if 30-minute off-peak headways are operated; and
  - 30- to 40-foot transit coaches would be used. Interroute transfers facilitated at RTA transit center.
- Community shuttle:
  - Two community shuttles—Business Park Shuttle and Downtown Shuttle;

Proposed Bus Routes



- Both routes would use small 24-passenger cutaway minibuses; and
- Routes would be interlined at RTA transit center to facilitate single-seat service between downtown residential neighborhoods and jobs in the business park.

Additional information for the two recommended community shuttles:

- Business Park Shuttle:
  - Intended primarily as a Metrolink feeder, providing regional commuter access to local jobs;
  - Serving business and industrial parks north of Metrolink station;
  - Operating on 15-minute headway in peak and 30-minute in off-peak;
  - May only be a peak hour service depending on demand;
  - Corona Cruiser Blue Line could provide off-peak service; and
  - Actual routing determined by location of key employers.
- Downtown Shuttle:
  - Intended primarily to link downtown commercial and residential with Metrolink;
  - Operating on 15-minute headway in peak and 30-minute in off-peak;
  - Corona Cruiser Red Line could provide off-peak service; and
  - Actual routing determined by high density concentrations.

Accordion Bus

Express Bus

Community Shuttle

Recommendations

Overview

In addition to the urban design, land use, circulation, and bus service recommendations, the following additional elements to the creation and support of the Corona Transit village are discussed:

Transit Village District: An outline of the framework for a comprehensive zoning district that can be incorporated within the North Main Specific Plan.

Parking Guidelines: A discussion of the current approaches to address the unique needs and opportunities for the provision of parking in a Transit Village.

Market Analysis: Specific recommendations for undertaking the type of market assessment and economic analysis of development prototypes that are envisioned in the Transit Village.

Development Incentives: A brief discussion of the types of incentives that have been effective in other TODs.

Industrial Adjacency Analysis: A process for consideration that evaluates the potential hazards of placing residential units in close proximity to industrial uses.

Air Quality Analysis: An update in air quality requirements/guidelines pertaining to Metrolink stations.

Financing Options: A summary of the range of options for financing improvements within a Transit Village.

Relevant Case Studies: A compendium of TOD case studies that offer further research sources for Corona.

Transit Village District

I. Purpose

A. To encourage a mixture of moderate to high density residential and pedestrian-friendly commercial and office uses to promote transit ridership within walking distance of the Metrolink station.

B. To promote coordinated and cohesive site planning and design that maximizes transit-supportive development in a pedestrian-oriented design.

C. For an overlay district: to permit increased heights, densities and intensities over the base zone for projects with a residential component and to encourage housing and mixed-use projects.

D. To restrict certain uses that do not support transit ridership.

II. Applicability

A. Applies to the recommended study area in this report, at a minimum. Should contain provisions for transit supportive projects extending to the half-mile radius. Should also consider the role of future bus corridors (particularly along Main Street).

B. Describe how the zone or district appears on the official zoning map.

III. Use Regulations

A. Prohibited Uses (more important than permitted uses in a Transit Village Zone): The following are recommended prohibited uses:

1. Automotive sales, service, repair, storage, salvage, or rental
2. Gasoline sales
3. Convenience stores with gas sales
4. Drive-through establishments
5. Equipment sales or rental
6. Manufactured home sales
7. Salvage yards
8. Heavy industrial (need to define light industrial with an office component as conditional)
9. Towing services
10. RV mobile home sales or storage
11. Car wash
12. Mini-storage and self-storage facilities
13. Commercial laundries with on-site dry-cleaning
14. Warehousing and distribution facilities
15. Low density housing (less than 15 du/ac)
16. Golf course
17. Boat sales or storage
18. Freight terminal
19. Amusement park
20. Building contractor storage facility
21. Retail uses larger then 10,000 square feet, unless part of a mixed-use development
22. Commercial parking facilities
23. Nursery (selling of live plants)
24. Service station
25. Wholesale stores and distributors over 6,400 square feet
26. Sex-oriented book stores

B. Permitted and Conditional Uses: Identify the uses that create a multiuse, pedestrian-oriented environment, such as: retail uses (less than 10,000 square feet), professional offices, newsstand, coffeehouses, day care facility, florist, restaurant or café, personal and business services, medium and high density residential (with a minimum of 3 stories), and live-work units. Conditional uses should be minimized, which means the zone should be comprehensive in terms of use regulations, form, and possible design criteria.

C. Plan review requirement: Seek to streamline the plan review requirement. Establish findings related to transit-oriented development.

IV. Development Standards

A. Density
   1. Nonresidential density: A minimum Floor Area Ratio (FAR) for nonresidential development shall be established.
   2. Residential density: A minimum number of dwelling units per net acre shall be established for residential projects (or base on form/number of stories).

B. Parking
A parking and joint use analysis shall be completed to identify minimum and maximum parking requirements for all proposed uses and joint use opportunities and requirements.

C. Pedestrian Access
Public pedestrian access through or across the development may be required in order to facilitate convenient pedestrian access to transit stops, stations, shopping, or other community facilities.

D. Building Placement
Describe minimum and maximum setbacks.

E. Building Profile
Include building height in terms of stories; encroachments into the setbacks; and range of frontage types desired in the Transit Village district.

F. Standards for the Public Realm
   1. Define standards for the creation of public spaces, including the transit room, plazas and piazzas, neighborhood squares, neighborhood parks, and greenways.
   2. Define standards for the creation of smaller blocks, where applicable.
   3. Define street standards and streetscape design for the full range of streets in the district.

Parking Guidelines

Parking design, configuration, and management is critical to the overall success and viability of transit-oriented developments. There are several overarching factors to be considered when developing parking standards:

- Key design principles in TOD development emphasize compact and dense development, which also entails limiting large-scale surface parking.
- Mixed-use development calls for pedestrian-focused design, which requires a shift from conventional suburban parking locations.
- Marketing viability and adequate financial return for higher density or mixed-use projects may hinge on a reduction in parking requirements. Spaces in an underground structure can cost $25,000 per space.

There is a wealth of information on parking strategies derived from case studies throughout the United States. There is general agreement on the following transit-oriented parking principals:

Parking should not dominate the landscape. Large parking lots become a barrier to walking. Parking should be constructed so as not to impact the pedestrian realm. This includes concealing parking behind buildings, in mixed-use parking structures, or joint parking structures.

Charge for parking, where appropriate. Free parking encourages employees to continue to drive to work while fee parking encourages transit ridership.

Reduce off-street parking requirements. When viewing parking as an employment or business/residential use, the reduction in parking could serve to decrease development cost and discourage auto use.

Protect neighborhoods. Parking spillover can have a dramatic impact on surrounding residential uses. It may be necessary to protect parking in surrounding neighborhoods by imposing such programs as residential parking permitting or metering, exempting residents from charges.

Utilize on-street parking. On-street parking can be used to reduce off-street parking, but the design should be compact and it should not impact pedestrian walkability.

Create parking districts. Municipally managed parking districts that collect in-lieu or annual fees can be more cost-effective than bundled or per building parking.

Another consideration is Park & Ride. Although many forms of transit-oriented literature call for reduced parking requirements, the urbanizing environment of Western Riverside County presents a different situation. Driving to a commuter rail or light-rail station in a suburban environment is not uncommon.[1] According to Metrolink's I-15 Corridor Rail Feasibility Study, 50 percent of I-15 and I-215 corridor travelers drive over 21 miles from home to Metrolink stations. One technique for managing the higher parking requirements is through shared parking.

Shared Parking

Shared parking is the use of parking spaces to serve two or more individual land uses without conflict or encroachment. The ability to share parking spaces is the result of two conditions: (1) variations in the accumulation of vehicles by hour, by day, or by season at the individual land uses, and (2) relationships among the land uses that result in visits to multiple land uses on the same auto trip.[2] Land uses that use joint parking include offices, restaurants, retail, colleges, churches, cinemas, and special events.[3]

The application of joint parking can promote dense and compact development while supporting a pedestrian-friendly environment. As seen in Portland, Oregon, joint parking can reduce the parking demand by 0.5 spaces per 1,000 square feet of gross leasable area built. This can produce a savings of one-acre of parking for 249,000 square feet of gross leasable area. Some benefits of joint parking include:

- Reducing parking pressure on neighboring streets;
- Demonstrating that cooperation will occur when the need arises;
- Construction of fewer parking spaces;
- Denser development with more open space opportunities;
- Decreasing nonpermeable surfaces; and
- Improving the neighborhood business climate and community support for those businesses.[4]

The North Montclair Specific Plan: 2% Growth Vision Parking Analysis provides a good example of parking demand and shared parking recommendations. For more extensive explanation of shared parking, land use requirements, and base parking adjustment ratios, see *Shared Parking* by Mary S. Smith (2nd ed., 2005).

Transit-Oriented Development: Market Analysis

The timing of transit-oriented development is dependent upon many variables. For example a market that may not be able to support a five-story mixed-use condominium development at a density of 60 units per acre for another 10 to 15 years, might be able to support a three-story townhouse development at a density of 15 units per acre within the next five years. This is partially due to the fact that developments of greater intensity often require structured or underground parking and the use of more costly building materials and construction methods. This can significantly increase the sales price of a unit or the lease rate of nonresidential development, placing the development outside of that current market demand.

The jurisdiction must also weigh the benefits of immediate development with long-term goals. The theoretical townhouse development above may develop more quickly but would not ultimately provide enough residents to support additional commercial development around the station. For a jurisdiction seeking to generate a critical mass of residents, it may be better to delay development until the time is right for both the market and for the project goals.

To determine the appropriate timing and type of development for a specific site, a market analysis is recommended to provide insight into the current and future demand for residential and commercial development needs. The analysis should determine the financial feasibility for a variety of prototypical development programs, including an estimate on supportable uses and appropriate densities within the transit site. The market analysis should also include a pro forma analysis for several development options, considering variables such as construction costs (particularly for parking), projected income/revenue generation, and residual land value. Three-dimensional models of the prototypical development programs are also recommended to enhance comprehension of development options and potential impacts.

Development Incentives

Development within a Transit Village is inherently complex. Effective projects need to determine the market demand for the appropriate uses and coordinate the placement of those uses within the overall Transit Village plan—while enhancing transit accessibility. In addition, arranging financing can be difficult because the return on mixed-use design is not easy to calculate. The level of complexities may hide barriers and uncertainties that trip up a project long before construction even begins.

A number of tools or incentives have been used to enhance the development potential of transit village areas and simplify some of the processes. These tools include density bonuses (such as for a mixed-use project), land assembly, relaxed or creative parking standards, and streamlined review. The two most widely applied incentives are planning funding and supportive zoning.

Planning funding is the most common incentive because an effective Transit Village cannot be created without comprehensive planning. The level of planning involved is correspondingly complex, but most local governments cannot afford to sponsor this kind of transit planning, and they call on support from regional, state, and federal agencies and transit authorities. See *Financing Options for Transit Villages*.

The second most commonly applied incentive—and the factor with the greatest influence on transit village development—involves zoning. Most zoning calls for single uses and it usually doesn't support the density and intensity levels associated with transit-oriented development. To permit the necessary mixed-use requirements and high density levels, local governments must develop and establish proper zoning standards.

According to developers, the most effective ways to encourage development are through upgrades in transit services, streetscape improvements, reduced turnaround time during the entitlement process, and most importantly, transit-supportive

[1]Hank Kittmar and Gloria Ohland, The New Transit Town: *Best Practices in Transit-Oriented Development* (Washington, DC: Island Press), 2004.
[2]Mary S. Smith, Shared Parking, 2nd ed. (Washington, DC: Urban Land Institute), 2005.
[3]Metropolitan Service District, "Shared Parking in the Portland Metropolitan Area" (Portland, OR).
[4]Ibid.

zoning. Local governments that want to enhance development potential need to implement a development process that removes uncertainty in the design and approval process. Some jurisdictions have instituted "by right" uses in transit zones, supplemented with well-defined development regulations (such as form-based zoning). At a minimum, transit zones should be comprehensive enough to minimize (or eliminate) the need for special use reviews such as conditional use permits (CUP).

Some cities may be reluctant to forgo the review process because of their responsibility to ensure proper development that promotes public health and safety. An effective method of overcoming this difficulty is through a specific plan. If properly prepared, a robust Transit Village Specific Plan can assemble the necessary planning guidance to minimize the subsequent entitlement process. For Corona, a comprehensive update to the North Main Specific Plan is recommended to address the range of development incentives that are appropriate for the area.

Industrial Adjacencies Analysis

The mixed-used context of Transit Villages does not inherently present conflicting land uses or potential hazards to their residents. Nevertheless, there is a growing concern for potential hazards arising from industrial land uses near the residential components within Transit Villages. To address this issue, the City may want to consider adopting a process called an Industrial Adjacency Analysis (IAA), which evaluates the potential hazards of placing residential units in proximity to industrial uses.

The IAA was designed to identify and analyze potential hazards and recommend mitigation measures to reduce or eliminate potential threats to human health and safety. Unlike California Environmental Quality Act (CEQA) reviews, which take a single-project approach to analyzing emissions and hazards, the IAA reviews several kinds of potential hazards, single and cumulative, within a given area. The IAA focuses on all industrial businesses within 1,000 feet of the proposed residential site that involve operations which may include significant trucking; the storage, use, or disposal of toxic and/or hazardous materials of a kind and/or quantity that require registration with any governmental agency; or other operations that involve significant lighting, noise, and/or odor. In addition, the IAA evaluates potential adverse impacts to residents due to the presence of contaminated soil or groundwater in the vicinity of the project. Once completed, a city can make an informed decision and approve appropriate mitigation measures based on a comprehensive data and analysis of potential health hazards. An example IAA outline format is included below:

1. Executive Summary
2. Introduction
   - A. Project Location
   - B. Project Description
   - C. Planning Background
   - D. Purpose of IAA
   - E. Project Plans and Site Context Materials
3. Inventory of Adjacent Operations
   - A. Information regarding industrial operations within 1,000 feet of site (based on definition)
   - B. Noise Levels and Sources
   - C. Hazardous Materials Sources and Use
   - D. Odors
4. Environmental Considerations
   - A. Phase I Environmental Site Assessment
   - B. Contamination Assessment
   - C. Hazardous Materials Assessment
   - D. Air Emissions
   - E. Risk Management Program Information
   - F. Health Risk Assessments
   - G. Hazardous Waste Generators
5. Potential Threats to Human Health (including sensitive receptor information)
6. Additional Characteristics
7. Summary and Conclusions, including recommendations for any distance buffering necessary to ensure land use compatibility.
8. Glossary of terms used in the IAA
9. References

Air Quality Analysis

The following Q&A has been prepared to address some of the questions that have arisen when planning for TOD development around Metrolink stations.

Do air quality impacts from Metrolink stations warrant regulatory control?
No. Passenger locomotives and stations, such as Metrolink and Amtrak, are exempt from railroad air emission control programs recently established by state and regional air quality control agencies.

Why are passenger railroads exempt from air quality control regulations?
Passenger railroads are exempt because their emissions are relatively minor compared to those from freight railroad operation. The South Coast Air Quality Management District (SCAQMD) has chosen not to regulate passenger railroads or stations such as Metrolink and Amtrak because they contribute less than 10 percent of the nitrogen oxides (NO_x) and particulate matter (PM) emissions from railroad operations in the region. Similarly, the California Air Resources Control Board (CARB) does not cover passenger railroads in its voluntary program to control railroad air emissions.

What are some key differences between freight and passenger railroad operations?
Passenger railroad operations conduct very little switching, maintenance, service and cargo-handling activities. These activities occur regularly at freight rail yards and are the source of most air emissions and associated health risks from freight railroad operations.

Do air quality impacts from freight rail yards warrant regulatory control?
Yes. Freight locomotives and rail yard operations are a significant source of smog-forming (NO_x) and toxic (diesel PM) emissions. In October 2004, CARB conducted a health risk assessment to estimate the cancer risk from diesel exhaust from operations at a major Class I freight rail yard in Roseville. The results of this analysis, the first of its kind in California, showed significant risk around the Roseville rail yard. The Roseville study prompted SCAQMD to promulgate railroad rules targeting air emissions and health risks from 19 freight rail yards in the region. The study also led CARB to establish a voluntary program for controlling emissions and risks from 17 major freight rail yards statewide.

What regulations and programs exist to control emissions from major freight rail yards?
In 2005, SCAQMD adopted Rule 3503—Emissions Inventory and Health Risk Assessment for Rail Yards—to mitigate health risks from 19 major freight rail yards in the South Coast Air Basin. The rule requires public notification if the risks from rail yards are above a specified threshold. In 2006, Rule 3501 (Record Keeping for Idling at Major Freight Rail Yards) and Rule 3502 (Reduction of Idling at Major Freight Rail Yards) were adopted. All three rules are subject to ongoing litigation in federal court between SCAQMD and the major freight railroads.
CARB is addressing air quality health risk from the 17 major freight rail yards in the state through a Voluntary Agreement, established in 2005 with the two long-haul railroads (UP and BNSF) that operate the yards. The Agreement calls for health risk assessments to be performed at the 17 major freight rail yards, as well as controls on locomotive idling, use of low sulfur fuel, and so forth. In 2005, CARB published Air Quality & Land Use Handbook: A Community Health Perspective, which makes recommendations for siting sensitive land uses such as residences and schools around major freight rail yards with maintenance and service activities. The advisory recommendations from CARB are: (1) Avoid siting sensitive land uses within 1,000 feet of a major service and maintenance rail yard, and (2) within one mile of a rail yard, consider possible siting limitations and mitigation approaches.

Financing Options for Improvements of Transit Village

The coordination and planning of financing is crucial to the overall project development. There is no single source of funding for a transit-oriented development project. Instead, a successful financial plan will include an intricate assembly of funding from various federal, state, regional and local sources. Such sources may also include private financing. A summary of the major types of financing and detailed information on funding sources are included below.

Grants. Direct funding for transportation planning, implementation, and development may be available through various sources. Sources include the U.S. Department of Transportation; Environmental Protection Agency; Economic Development Administration; Housing and Urban Development (HUD); California State Treasurer; California Department of Transportation; California Department of Housing, and Community Development.

Community Development Block Grants (CDBG). CDBG grants are provided through the federal Department of Housing and Urban Development. HUD grants are provided for community development activities directed toward revitalizing neighborhoods, economic development, affordable housing opportunities, and providing improved community facilities and services.

Municipal Bonds. Municipal bonds are bonds issued by any city, county, or state. These bonds can be used to fund local projects such as highways, schools, and infrastructure improvements. Bonds offer municipalities the ability to raise project funding without increasing taxes. Interest payments on municipal bonds are normally exempt from federal, state, and local taxes.

Loans. Private loans can be made available through many private lending institutions. Some developers have identified private funding issues when attempting to prove mixed-use market performance and profitability. Banks with headquarters in large metropolitan cities that have extensive transit-oriented development, such as New York and Chicago, tend to have a better understanding of TOD financing and performance.

Tax Increment Financing. Tax increment financing is commonly seen in redevelopment areas. This redevelopment tool was created to assist cities in improving areas that are blighted or economy depressed. Tax increment financing works by reinvesting the incremental tax increases (starting from the time an area is declared to be a redevelopment zone) into the redevelopment zone. Due to property tax increase limitations, this option works best when applied before major development occurs. This will set the base property tax level at predevelopment land values.

Tax Abatement. Tax abatement provides tax relief for developers to encourage new development. Tax abatement is often used for affordable housing projects, but should be used sparingly in other areas as it could be considered a form of development subsidization.

Benefits Assessment District. A Benefits Assessment District is a public/private funding partnership in which property and business owners of a defined area elect to make a collective contribution for the development, maintenance, operations and other related services for their designated district.

Federal and State Funding Sources

	LAND USE					
	"Good Fit" for TODs	Transportation Facilities	Transit Facilities	Affordable Housing	Environmental Concerns	General Community Investment
Federal Funding Sources						
Brownfield Economic Development Initiative (BEDI)					✓	
Community Development Block Grant (CDBG) Program	✓					✓
Congestion Mitigation and Air Quality (CMAQ) Improvement Program			✓		✓	
Economic Development Initiative (EDI)	✓					✓
Federal Transit Act Section 5309 Grant Program – New Rail Starts			✓			
HOME Investments Partnerships Program				✓		
HOPE VI	✓			✓		
New Markets Tax Credit				✓		✓
New Markets Venture Capital Program						✓
Section 108 Loan Guarantee Program	✓			✓		✓
Short Term Planning Grants						✓
Surface Transportation Program (STP)		✓	✓			
Tax Credits – Low Income Housing				✓		
Technical Assistance Grant (TAG) Program						✓
Transportation and Community and System Preservation (TCSP) Pilot Program	✓	✓	✓			
Transportation Equity Act for the 21st Century (TEA-21)	✓	✓	✓			✓
State Funding Sources						
Bicycle Transportation Account (BTA) Program		✓				
CalHome Program				✓		
California Organized Investment Network (COIN)				✓		✓
Child Care Facilities Finance Program (CCFFP)						✓
Cleanup Loans and Environmental Assistance to Neighborhoods (CLEAN) Program					✓	
Downtown Rebound Planning Grants Program	✓					✓
Downtown Rebound Program	✓			✓		✓
Home Investment Partnerships Program (HOME)				✓		
Interregional Improvement Program		✓	✓			
Multifamily Housing Program (MHP)	✓			✓		✓
Petroleum Violation Escrow Account (PVEA)					✓	✓
Regional Improvement Program		✓	✓			
State Community Development Block Grant Program (CDBG)	✓					✓
State Transit Assistance			✓			
State Transportation Improvement Program (STIP)		✓	✓			
Urban Predevelopment Loan / Jobs Housing Balance Program	✓			✓		✓

Source: California Department of Transportation, Final Report on Statewide Transit-Oriented Development, 2002

Development Impact Fees. Development impact fees have become commonplace among modern development. These fees allow new development projects to finance infrastructure improvements, relieving city and county municipalities of the burden. Although a lucrative method for assuring infrastructure improvements, such fees could discourage new development and are not commonplace or encouraged in transit-oriented development projects.

Funding Sources. Due to the intricacies of financing, different types of funding may be available for the various land uses and transit facilities. To demonstrate how the overall financial plan can include multiple sources, the table (left) provides possible funding sources based on the land uses.

Funding Sources

Federal and state tax credits, loans and grants are a few of the sources of funding for transit-oriented development. What follows is a variety of funding opportunities for housing, economic development and transportation projects.

I. Federal Programs

TRANSPORTATION AND SYSTEMS AND COMMUNITY PRESERVATION FUND

Funding Source: **US Department of Transportation, Federal Highway Administration**

Description: Discretionary grants to plan and implement strategies that improve the efficiency of the transportation system; reduce environmental impacts of transportation; reduce the need for costly future public infrastructure investments; ensure efficient access to jobs, services, and centers of trade; and examine private sector development patterns and investments that support these goals. A total of $120 million was authorized for this program for FYs 1999–2003.

Eligible Users: State agencies, metropolitan planning organizations, and units of local governments that are recognized by a state are eligible recipients of TCSP grant funds. This would include towns, cities, public transit agencies, air resources boards, and school boards. Nongovernmental organizations that have projects they wish to see funded under this program are encouraged to partner with an eligible recipient as the project sponsor.

Policies & Guidelines: Grant proposals should address efforts to:

- Improve the efficiency of the transportation system
- Reduce the impacts of transportation on the environment
- Reduce the need for costly future public infrastructure
- Ensure efficient access to jobs, services and trade centers
- Encourage private sector development patterns.

SAFE, ACCOUNTABLE, FLEXIBLE, EFFICIENT TRANSPORTATION EQUITY ACT (SAFETEA)

Funding Source: **U.S Department of Transportation**
http://www.fhwa.dot.gov/reauthorization/safetkeyinfo.htm

Description: Encourages projects that will facilitate the planning, development, and implementation of strategies by states, metropolitan planning organizations, federally recognized tribes and local governments to integrate transportation, community, and system preservation plans and practices that improve the efficiency of the transportation system; reduce the impacts of transportation on the environment; reduce the need for costly future investments in public infrastructure; provide efficient access to jobs, services, and centers of trade; and examine development patterns and identify strategies to encourage private sector development patterns which achieve these goals.

Eligible Users: State and local governments

Policies & Guidelines: $500,000 per year to each state; must also make funds available to MPOs, federally-recognized tribes, and local governments in a manner and in amounts to be determined by the state.

Federal Grant Search Databases

WEBSITE	CATEGORY	ORGANIZATION
http://fedgrants.gov	RFP autonotification service	Select by category
http://cfda.gov	Catalogue of Federal Domestic Assistance	Federal Commons Link
http://www.hhs.gov/fbci/funding.html	Faith-based & community nonprofit assistance	US Health & Human Services
http://www.foundationcenter.org	Grantor info and some free services	Fee service for funding research
http://www.rwjf.org	Health care, family, public health policy, population health science	
http://www.grantwritingusa.com/hsu.html	Homeland Security Grants	Homeland Security
http://www.hud.gov/offices/adm/grants/fundsavail.cfm	Notice of Funding Availability SuperNOFA	HUD

THE PEDESTRIAN AND CYCLIST EQUITY (PACE) SAFE ROUTES TO SCHOOL PROGRAM
(HR 2568 Act of 2003 still pending approval)

Funding Source: **US Department of Transportation (SAFETEA Fund)**
The Highway Trust Fund
http://www.americabikes.org/SRTS.asp

Description: Safe Routes to School Program would provide $250 million annually from 2004 through 2009. The program would include provisions for planning, infrastructure improvement, and public awareness. Infrastructure-related projects to encourage walking and bicycling to school could include sidewalk improvements; traffic-calming and speed-reduction improvements; on-street bicycle facilities; off-street bicycle and pedestrian facilities; and secure bicycle-parking facilities. Funds can also be used for non-infrastructure-related activities including public-awareness campaigns and outreach to press and community leaders.

Eligible Users: Eligible recipients include state, local or regional agencies, including nonprofit organizations.

Policies and Guidelines: Not less than 10 percent of amounts apportioned to a state must be used for non-infrastructure-related activities. A report conducted by a task force composed of leaders in health, transportation, education, and representatives of appropriate federal agencies will examine strategies for advancing the safe routes to school programs nationwide, and will be submitted to Congress no later than March 31, 2006.

BROWNFIELDS GRANTS

Funding Source: **Environmental Protection Agency (EPA) Region 9**
http://yosemite.epa.gov/r9/fsfc.nsf/58cc78776e5e186b8825641b006a9bd8/ccd09a108ad0583b8825641f000f478c?OpenDocument

Description: Up to $400,000 per grant for assessment. Up to $700,000 with waiver. To provide funding for communities and other stakeholders in economic redevelopment to work together to prevent, assess, safely cleanup, and sustainably reuse Brownfields. Encourages community groups, investors, lenders, and developers to develop creative solutions to assess and clean up contaminated sites and return them to productive use.

Eligible Users: States, cities, towns, counties, U.S. Territories, and Tribes are eligible to apply.

Policies & Guidelines: Some grants require a match; others do not. Up to $1 million available for revolving loan fund grants and up to $200,000 available for cleanup grants. These two grants require a 20 percent match. Other grants available to start brownfields job training programs. See 2003 Brownfields Guidance for more information about applying.

ECONOMIC DEVELOPMENT TECHNICAL ASSISTANCE GRANTS

Funding Source: **Economic Development Administration (EDA)**
http://www.eda.gov/AboutEDA/Programs.xml

Description: Provides grants and cooperative agreements for technical assistance projects to create and retain jobs and promote economic growth. Activities funded under the program include business start-ups, expansion, retention, job training; infrastructure and downtown revitalization. There is a total of $10,920,000 available, with an average grant amount of $25,000.

Eligible Users: The economic development program is open to rural counties, cities with more than 50,000 population, cities with less than 50,000 population, counties, nonprofit corporations, and Tribes.

Policies & Guidelines: Proposals are judged on basis of proposed work program and qualifications of applicant; how the project strengthens local organizations and institutions; benefits distressed areas; diversifies distressed economies; has innovative approach. Applications are continuously accepted.

ECONOMIC DEVELOPMENT ADMINISTRATION – SHORT TERM

Funding Source: **Economic Development Administration (EDA)**
http://12.46.245.173/pls/portal30/CATALOG.PROGRAMTEXTRPT.SHOW?p_arg_names=prog_nbr&p_arg_values=11.302

Description: Short-term planning grants provide support for significant new economic development planning, policy-making, and implementation efforts, and establish comprehensive economic development planning processes cooperatively with the state, the state political subdivisions, and economic development districts.

Eligible Users: State and local governments; regional economic development districts; public and private nonprofit organizations.

Policies & Guidelines: Eligible activities include: preparation and maintenance of a continuous comprehensive economic development and planning process; coordination of multijurisdictional planning efforts; diversification of the local economic base and implementation of programs, projects and procedures designed to create and retain permanent jobs and increase incomes.

SUPERNOFA ECONOMIC DEVELOPMENT AND EMPOWERMENT PROGRAM

Funding Source: **HUD – (BEDI) Brownfields Economic Development Project**
http://www.hud.gov/offices/cpd/economicdevelopment/ programs/bedi/index.cfm

Description: This SuperNOFA is designed to make it easier to find and apply for funding under a wide variety of HUD programs. The SuperNOFA provides a "menu" of HUD funding opportunities.

Eligible Users: Each of the programs included in the SuperNOFA has different statutory and congressionally mandated requirements for determining which organizations are eligible to apply for funding. You must read the Eligible Applicants section for the specific programs in the SuperNOFA to determine eligibility for program funds.

Although HUD is strictly prohibited from awarding funding to ineligible applicants, they strongly encourage ineligible groups with expertise to partner with an eligible entity that would be eligible to apply.

Policies & Guidelines: The applicant must submit a completed application to HUD on or before the respective program's application due date.

II. California State Programs

CALIFORNIA POLLUTION CONTROL FINANCING AUTHORITY

Funding Source: **(CPCFA) Sustainable Communities Grant and Loan Program**
www.treasurer.ca.gov/CPCFA/

Description: A State Treasurer's Office–sponsored communities grant and loan program that provides maximum assistance of up to $500,000 per applicant, which includes $350,000 in grant funding and up to $150,000 in loan assistance for programs and projects that reduce pollution hazards and degradation of the environment, assist in the revitalization of one or more neighborhoods that suffer from high unemployment levels, low-income levels and/or high poverty, and/or promote infill development.

Eligible Users: All applicants are required to be one or more California cities, counties, or city and county (the applicant could partner with a public entity including but not limited to, a redevelopment agency or joint powers authority).

Policies & Guidelines: One application per funding round for program funds. Project proposals must identify that the project will assist in the reduction of pollution hazards within the existing neighborhoods and/or assist one or more neighborhoods that are economically distressed and/or promote infill development.

CALIFORNIA TAX CREDIT ALLOCATION COMMITTEE (TCAC)

Funding Source: **CA State Treasurer**
http://www.treasurer.ca.gov/ctcac
Telephone: (916) 654-6340

Description: Two low-income housing tax credit programs—a federal and a state program—authorized to encourage private investment in rental housing for low-income families and individuals. The state program does not stand alone but supplements the federal tax credit program.

Eligible Users: Developers and sponsors of affordable rental housing, either new construction or for the acquisition and rehabilitation of certain projects, are eligible for tax credits in both federal and state programs.

Policies & Guidelines: Rent and income restrictions on proposed units apply. Determination of credit need assessed by the TCAC on a project-to-project basis.

STATE TRANSPORTATION IMPROVEMENT PROGRAM (STIP)

Funding Source: **CA State Highway Account**
http://www.dot.ca.gov/hq/transprog/stip.htm

Description: The STIP is a multiyear capital improvement program of transportation projects on and off the state highway system, funded with revenues from the State Highway Account and other funding sources. STIP programming generally occurs every two years.

Eligible Users: STIP funds only construction projects. Mostly new highways and transit, but more recently, bicycle and pedestrian projects, road repair, and street maintenance are now eligible.

Policies & Guidelines: Policies and guidelines for STIP funds vary according to the project submitted.

BICYCLE TRANSPORTATION ACCOUNT PROGRAM (BTA)

Funding Source: **California Department of Transportation**
http://www.dot.ca.gov/hq/LocalPrograms/ bta/btaweb%20page.htm

Description: The BTA funds city and county projects that improve safety and convenience for bicycle commuters.

Eligible Users: To be eligible for BTA funds, cities and counties must have a Bicycle Transportation Plan (BTP) that discusses certain required items.

Policies & Guidelines: See website.

CAL HOME PROGRAM

Funding Source: **California Department of Housing and Community Development (HCD)**
http://www.hcd.ca.gov/ca/calhome/

Description: Funds low- and very-low-income households to become or remain homeowners. Grants to local public agencies and nonprofit developers to assist individual households through deferred-payment loans. Direct, forgivable loans to assist development projects involving multiple ownership units, including single-family subdivisions.

Eligible Users: Local public agencies; nonprofit corporations.

Policies & Guidelines: Eligible activities include pre-development, site development, and site acquisition for development projects; rehabilitation, and acquisition and rehabilitation, of site-built housing; rehabilitation, repair and replacement of manufactured homes; down payment assistance, mortgage financing, home buyer counseling, and technical assistance for self-help.

DOWNTOWN REBOUND PLANNING GRANTS
(No funds currently available: 8/31/2006)

Funding Source: **California Department of Housing and Community Development (HCD)**
http://www.hcd.ca.gov/fa/

Description: Deferred payment development loans to finance the conversion of vacant or underutilized commercial and industrial structures into residential units; residential infill; and the development of high-density housing adjacent to existing or planned mass-transit facilities.

Eligible Users: Local public entities, for-profit and nonprofit corporations, limited liability companies, limited equity housing cooperatives, Indian reservations and rancherias, and limited partnerships in which an eligible applicant or an affiliate of the applicant is a general partner.

Policies & Guidelines: Applications will be invited by Notices of Funding Availability (NOFAs), which may be accessed at the HCD website.

State Grant Search Databases and MTC Library

WEBSITE	CATEGORY	ORGANIZATION
http://www.hcd.ca.gov/clearinghouse/	Housing–Financial Clearinghouse	HCD–State of California
http://www.mtc.ca.gov/library/tlc.htm	Livable Communities Library	Metropolitan Transportation Commission

General Grant Search Databases

WEBSITE	CATEGORY	ORGANIZATION
http://www.foundationsearch.com	Foundation Search	Create Partnerships
http://www.bigdatabase.com	Development Fundraising Database	Grant Development
http://www.ecivis.com	Grant Locator	Local Governments

STATE COMMUNITY DEVELOPMENT BLOCK GRANT PROGRAM

Funding Source: **California Department of Housing and Community Development (HCD)**
http://www.hcd.ca.gov/fa/cdbg/PlanTech.html

Description: Create or preserve jobs for low income and very low income persons.

Eligible Users: Counties with fewer than 200,000 residents in unincorporated areas and cities with fewer than 50,000 residents that are not participants in the U.S. Department of Housing and Urban Development (HUD) Community Development Block Grant (CDBG) entitlement program.

Policies & Guidelines: Grants of up to $500,000 to provide loans to businesses, grants for publicly owned infrastructure, and microenterprise assistance. Individual project funding decisions are made by the jurisdiction. Businesses receiving loans must create or retain private sector jobs principally for low income and very low income persons.

Relevant Case Studies

THE VILLAGE AT FREMONT BART STATION – Fremont, California

DEVELOPMENT OF VACANT LOTS INTO A VIBRANT AND WELL-DEFINED COMMUNITY
Developers: Sun America, mixed-use housing; Pacific Capital Group, office

Key Site Statistics

- Acreage: 12-acre site
- Land uses: Office, retail, residential with 765 parking spaces
- Project financing: $75 million
- Transit elements: Fremont BART Station, ACE Trains Transit Service

The Village is a mixed-use development within walking distance of the Fremont BART Station. The project has two components: an office building and a housing development with retail. The Fremont BART Station abuts the Central Business District (CBD) which is the densest development in the City of Fremont. The BART and ACE trains Transit Service serve this regional bio-tech and hi-tech employment center. The Concept Plan for Fremont's CBD envisions the downtown as a "vibrant and well-defined" community. Downtown has several large vacant lots interspersed with low density office and retail establishment. Some multifamily housing exists to the north of the BART Station outside the CBD.

Pacific Capital Groups has bought the office component on a 2.7-acre plot while Sun America Developers is developing the mixed-use housing component on the remaining land. There is a shared parking program in place. Parking for 463 vehicles are dedicated to the housing, 354 are in parking structures. Offices are assigned 135 parking spaces while 167 spaces are shared between housing residents and office workers. Developers have acknowledged that proximity to transit has been a big draw for the office space clients.

UPTOWN DISTRICT – San Diego, California

DEVELOPMENT OF VACANT BIG BOX STORE SITE INTO VIBRANT DISTRICT
Developers: Oliver McMillin Company, Oldmark & Thelan

Key Site Statistics
- Acreage: 14-acre area
- Land uses: 318 residential units at an average density of 43 units/acre; 145,000 square foot of retail and commercial space, including a 42,500 square foot supermarket, and a 3,000 square foot community center; residential and supermarket parking is underground and street level spaces are available for retail shoppers
- Project financing: $70 million privately financed
- Transit elements: No single station; district is served by 4 or 5 Metropolitan Transit Development Board (MTDB) routes

The Uptown District development is a pedestrian-oriented mixed-use retail center and residential development that exemplifies the creative reuse of an auto-oriented "big-box" development. There was no public opposition to the project since it required relatively little change to the community. Unlike many other TODs, it is not focused around a single stop on a rail system. Instead, the Uptown District development is situated within one of San Diego's most walkable neighborhoods and may be thought of as a bus TOD with excellent transit service provided by several of MTDB's routes. Uptown is a wonderful example of how to accommodate the needs of the automobile and create a well-designed, pedestrian-friendly, mixed-use TOD.

CITYCENTER ENGLEWOOD – Englewood, Colorado

DEVELOPMENT OF A "DEAD" MALL INTO THE REGION'S FIRST TOD
Developers: Miller Weingarten Reality, Trammell Crow Residential

Key Site Statistics
- Acreage: 55-acre site
- TOD zoning: Englewood Town Center Master Plan
- Land uses: 438 rental units, 380,000 square foot retail; 150,000 square foot office; plus city hall and library
- Project financing: $160 million project; $123 million developer investment; $18.5 million public improvements funded by City; $5.7 million in RTD transit improvements
- Transit elements: LRT station, 8 bus bays, 910-space Park & Ride

Located next to Denver's SW corridor light rail, CityCenter Englewood is the region's first TOD. The 55-acre project features 438 apartment units, 380,000 square feet of retail, and 150,000 square feet of office over ground-floor retail. A new city hall and library were carved out of an old department store fronting onto a community amphitheater and sculpture plaza.

CityCenter Englewood is the transformation of the former 100-acre, 1.3 million square foot Cinderella City Mall into a new urban center. In 1997 the 29-year-old mall's last tenant closed for good. Although the site had been previously planned for redevelopment as a big box retail center, city leaders became interested in pursuing a mixed-use transit-oriented development to take advantage of the planned Regional Transportation District (RTD) light rail stop.

The City of Englewood took the lead in moving the project forward in partnership with a private nonprofit interested in promoting TOD. The city assembled the site and provided financing for streets and structured parking. The project has five key objectives: (1) Revitalizing the inner suburbs; (2) Replacing mall footprint with urban streets, parks, and pathways; (3) Integrating new development with transit; (4) Providing adequate parking for all uses; and (5) Integrating big-box retail.

EASTSIDE VILLAGE – Plano, Texas

DEVELOPMENT OF A MIXED-USE TOD IN A SUBURBAN DOWNTOWN
Developers: Robert Shaw, Amicus Partners

Key Site Statistics
- Acreage: 3.6-acre site
- TOD zoning: base zoning of 40 units/acre, developer-initiated planning process that resulted in density increase to 100 units/acre
- Land uses: 234 residential units, 15,000 square foot retail, 5-story 351-space parking structure, and 47 surface spaces
- Project financing: $17.7 million project; developer investment $15.7 million, City assembled the site, selected developer form RFQ, and paid for all off-side public infrastructure and streetscape improvements at a cost of $2 million; a 70-year lease with three 10-year options
- Transit elements: LRT station, 4 bus lines

Helping anchor the rebirth of downtown Plano, Eastside Village is a $17.7 million high-density mixed-use project fronting directly onto DART's light rail station plaza. The 3.6-acre 245,000 square foot project features 234 apartment units and 15,000 square feet of ground floor retail. The 3- and 4-story building wraps around three sides of a 5-story, 351-space parking structure.

Eastside Village was the first major step to achieve the City's vision to "Transform downtown into a compact, mixed-use, urban center consistent with the principles of new urbanism and transit oriented design to enhance the community's quality of life and provide a model for sustainable development within a maturing suburban city."

The City of Plano provided the leadership to make the project happen. They advocated for the station location, saw opportunity to marry development with the DART LRT platform, assembled the site, offered it for development, leased the land to Amicus Partners, paid for public infrastructure and streetscape improvements, increased the allowable density from 40 to 100 dwelling units per acre, and waived fees.

EMERY STATION – Emeryville, California

DEVELOPMENT FROM BROWNFIELD TO A PEDESTRIAN-FRIENDLY COMMUNITY
Developer: Wareham Development

Key Site Statistics
- Acreage: 20-acre site
- Land uses: 150 units of owner-occupied lofts and townhomes, a senior housing project, 100 units of rental apartments, ground floor mixed-use allowing retail, commercial or office uses, underground parking structure
- Project financing: $200 million; City assisted with infrastructure costs, and the remainder was privately funded.
- Transit elements: Emeryville Amtrak Station, Emery Go-Round Shuttle Bus, which connects to MacArthur BART Station two miles away

Emery Station is a 20-acre mixed-use TOD anchored by an Amtrak station. The site is a former brownfield. The developer, Wareham Properties, and the City of Emeryville provided leadership to implement the project. The project includes reuse of old industrial buildings and new construction. EmeryStation is an example of how a developer with a long-term view and a small city can partner and create a significant TOD.

In 1996, the City completed construction of a pedestrian bridge over the rail tracks to a nearby mixed-use center. The bridge and a free shuttle service (Emery Go-Round) link Emeryville's busiest business, retail and entertainment centers. In 1998, construction began on EmeryStation Plaza, a three-building, 550,000 square foot mixed-use complex on the north, east, and south sides of the Amtrak station. The first phase of the project is a 240,000 square foot, 5-story office building with ground-floor retail and two levels of parking below. Between 10% and 15% of the new development is planned for ground-floor mixed-use, allowing retail, commercial, or office uses as the market demands.

JERSEY CITY AND HOBOKEN – New Jersey

CITIES BUILT AROUND SUCCESSFUL TRANSIT FACILITIES
Developers: Multiple

Key Site Statistics
- Land uses: Residential, commercial, retail, and civic uses
- Transit elements: Light rail stations

Jersey City is one of the top 10 cities nationwide for job growth. Three thousand new housing units in the city are within a half mile of downtown light rail stations. The property values in the area have increased from $200K – $300K before the light rail station was built to $4 – $6 million afterwards. A new 86-acre New Urbanist development with an additional l 6,000 housing units is being built downtown. Sixty percent of residents who live near downtown take transit to work.

Hoboken's population grew an outstanding 4.1% from 2000 – 2005. Thirty-eight percent of the city's population is aged 20 – 34. These young professionals like the walkable, transit-oriented neighborhoods and nightlife of Hoboken. Single lots near the light rail station were $100,000 before the station was constructed; now the same lots are worth $800,000. Ridership on light rail is up 30.2% since 2003.

MOCKINGBIRD STATION – Dallas, Texas

DEVELOPMENT OF A NEW MIXED-USE TOD
Developers: Kenneth H. Hughes / David W. Dunning

Key Site Statistics
- Acreage: 10-acre site
- TOD zoning: Mixed-use zoning, no TOD provisions
- Land uses: 211 upscale loft residences, 180,000 square feet of retail, theater and restaurants, 140,000 square feet of offices; 1,418 parking spaces
- Project financing: $145 million privately financed project
- Transit elements: LRT station, Park & Ride and bus transfer center, developer paid for pedestrian bridge connecting station to project

Located next to Dallas's DART light rail and the North Central Expressway, Mockingbird Station is a $145 million, 10-acre mixed-use TOD project featuring an art house movie theater, 211 loft apartments at a density of 234 units per acre, upscale retail, a planned new hotel, offices and restaurants.

With the exception of federal contributions towards local infrastructure, the development has been privately financed. Mockingbird Station was created without any subsidies, TOD planning or supportive policies by the regional planning agency, the City of Dallas or DART.

The developer estimates that he had to build $6 million worth of excess (structured) parking for the project. The city allowed the project to build only 1,600 spaces (2,200 were required, 1,400 are built thus far) by granting a mixed-use parking reduction credit. It refused to reduce parking further to reflect transit's proximity. The developer estimates he may have only needed to provide 1,300 spaces, acknowledging that some tenants may have resisted the lower figure.

OHLONE-CHYNOWETH COMMONS – San Jose, California

AN AFFORDABLE TOD DEVELOPED ON AN UNDERUSED PARK & RIDE LOT
Developer: Eden Housing

Key Site Statistics
- Acreage: 7.3-acre site
- TOD zoning: Planned Unit Development with project-specific zoning, required 2 spaces per unit.
- Land uses: 197,000 square foot with 195 units, 4,400 square foot retail
- Project financing: $31.6 million project; $14.5 million in tax-exempt bonds, $824K in federal transportation funds for improvements, a $500K affordable housing grant.
- Transit elements: LRT Station, 3 bus routes, 240 space Park & Ride

Located on Guadalupe light rail transit line in San Jose, Ohlone-Chynoweth Commons is a medium density mixed-use TOD. The project's housing, retail and community facilities were developed on an underused light rail Park & Ride lot. For this project, Valley Transportation Authority (VTA) issued a request for proposal seeking a developer for the 7.3-acre site. The former 1,100-space Park & Ride now includes: 240 Park & Ride spaces, 195 units of affordable housing, 4,400 square feet of retail and a day care center.

At 27 dwelling units per acre, the residential density of the Ohlone-Chynoweth Commons is relatively high compared to the predominantly single family neighborhood surrounding it. Ohlone-Chynoweth is a rare example of a Park & Ride converted to TOD without replacement of the commuter parking in structures or on another site. The developer, Eden Housing, has a 75-year lease for the site from VTA.

Ohlone-Chynoweth Commons provides affordable housing for families earning between 30 percent and 60 percent of the area median income in a community where an average market-rate two-bedroom apartment is renting for as much as $1,600 a month. The City has aggressively sought to locate housing next to transit. Since 1990 over 20,000 units of housing have been built or approved next to transit in San Jose.

ORENCO STATION – Portland, Oregon

DEVELOPMENT OF A NEW TRANSIT-ORIENTED COMMUNITY
Developers: Pacific Reality Associated, LP, Master Developer; Costa Pacific Homes, Residential

Key Site Statistics
- Acreage: 190-acre site
- TOD zoning: Orenco Station Master Plan
- Land uses: 1,834 units, 70,000 square foot retail/dining, 31,000 square foot office
- Project financing: $76.3 million development cost for core residential
- Transit elements: LRT station, 2 bus lines, 180 space Park & Ride

Orenco Station is a 190-acre, transit-oriented new community on the Westside light rail transit line in the suburbs of Portland, Oregon. Its pedestrian-oriented master plan provides for 1,834 dwelling units, including single-family homes, townhomes, accessory units, loft units, and apartments. The project also includes a mixed-use town center with offices and housing above ground-floor retail. Residential sales prices at Orenco Station are running 20 to 30 percent above the local area average. Commercial occupancies have been high, and rents are estimated to be roughly 10 percent higher than surrounding properties.

The site was originally zoned for industrial use and later for subdivision housing. Zoning for the development changed, however, when the site was designated a "town center" in the Portland Metro Area 2040 Plan. Importantly, the Plan specifies legally binding requirements for all Westside station areas, and mandates minimum densities and residential density targets at varying distances from light-rail stops, mixed-use development in station areas, pedestrian-oriented buildings, prohibitions on auto-oriented land uses, and reduced parking.

The project was completely privately financed, with the exception of a $500,000 federal clean air grant for wider sidewalks and ornamental lighting. Surveys of residents reveal that 18.2 percent of work trips are on the bus or LRT. Nearly 7 in 10 residents report that their transit use has increased since moving to the neighborhood.

PLEASANT HILL BART STATION AREA – Pleasant Hill, California

DEVELOPMENT OF SURFACE PARKING INTO WALKABLE "URBAN VILLAGE"
Developer: Millennium Partners

Key Site Statistics

- Acreage: 140 acres around Pleasant Hill BART Station; 18-acre redevelopment of vacant parking lot
- Land uses: Depending on market conditions and public approvals, the project will contain either 290,000 or 456,000 square feet of office space and either 274 or 446 apartments and for-sale townhouses, a childcare facility, and 42,000 square feet of ground floor retail and restaurants
- Project financing: $235 million; $40 of the total in public money
- Transit elements: Pleasant Hill BART Station

Pleasant Hill BART provides an important example of a suburban locale where a transit-oriented neighborhood has been taking shape incrementally over the course of three decades. The Pleasant Hill BART Station was undergoing its second phase of planning and development around 2001, which promises to improve the station's connections to the surrounding community by structuring Park & Ride facilities to make room for a walkable mixed-use development. In 1995, BART worked with the local redevelopment agency to select Millennium Partners as the company to redevelop its parking lots.

After several years of iterations and a very popular community involvement process, a draft plan with wide community support appears headed for approval. This plan calls for replacing the 18 acres of surface parking with a walkable "Urban Village" replete with a town square and community green. As part of the TOD, the County Redevelopment Agency would finance the replacement of BART parking, as well as assisting with providing other public facilities and affordable housing. Subject to negotiations, the Redevelopment Agency would be a partner with BART in a long-term ground lease, and would receive a proportionate share of revenues from the new development.

Commuter parking for the station remains at capacity, as BART ridership is drawn from a wide area. To recover the 1,477 surface parking spaces that BART will lose by leasing its land for new transit-oriented development, replacement parking will be provided in a new garage. Private parking for residential and commercial uses will be provided within those buildings.